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ABSTRACT

Presented are evaluation reports on four special education programs in the District of Columbia Public Schools: a daily program for the development of linguistic and conceptual ability in 12 aphasic children, emphasizing language reception and expression; a complete instructional program for some 18 multiply handicapped, hearing impaired rubella children ages 4-9 years; a program based on principles of behavior modification and called DILE (Designed Individualized Learning Environment) for 35 seriously emotionally disturbed or socially maladjusted children; and a program focusing on the training of adaptive behaviors in 38 severely mentally retarded children. Evaluation techniques included observation of behavioral changes, performance measures, analysis of diagnostic tests, anecdotal and cumulative records, and interviews or reports from social workers, psychiatrists, parents, teachers, principals, and project directors. A summary and a consultant's detailed systematic evaluation are given for each project. Consultants' examine extent to which projects meet objectives, strengths and weaknesses, and successes and failures of projects. Recommendations and some statistical data are included. (KW)

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A Final Report

Fiscal Year 1971

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Development of Linguistic and Conceptual Ability in Aphasic Children

Rubella Children: A Complete Program

Seriously Emotionally Handicapped: A Program Based on Principles of Behavior Modification (DILE - Designed Individualized Learning Environment)

Severely Mentally Retarded: Adaptive Behavior

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Final Evaluation Report

ESEA Title III Special Education Project

Fiscal Year 1971

Development Linguistic and Conceptual Ability in Aphasic Children

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INTRODUCTION

A critical determination of whether a program is acceptable, efficient or effective is by adequate evaluation. It is an integral part of an operational program. As a tool evaluation is invaluable to project directors and staff. It serves in the planning process by identifying problem areas, strengths and weaknesses, and provides opportunities for improvement.

Not only does evaluation serve in planning, but it is important to decision-makers. The data which evaluation provides lend guidance in determining the relevancy and value to the educational system on a local and/or national scale.

Realizing the importance of the evaluation process, the directors and teachers explored various techniques in appraising the programs.

Programs to be evaluated

The programs evaluated were designed to serve children with handicapping conditions. Individualized instruction for aphasic, rubella, severely mentally retarded, seriously emotionally handicapped, and multiply-handicapped children was provided. These children have distinctive problems, and most of them are multiply-handicapped: a few have severe organic problems, such as the deaf-blind; almost all are affected emotionally by their handicaps: and have learning problems.

To supplement the regular program, the project directors and teachers explored the value of other programs and procedures. Other special programs were incorporated: Project LIFE (Language Improvement to Facilitate Education), Peabody, Rebus Reading Program, Body Movement, Physical Therapy, IPI (Individually Prescribed Instruction), Borg-Warner Systems 80, Distar Instructional Program System, Sullivan Reading and Math Series, and SCIS (Science Integration Systems). Other specialized materials used were The Frostig Program, The Dubnoff School Program, and Films.

Evaluation Design

On-going assessment procedures built into the program were constant. Feedback provided directors and teachers with information that was valid and germane to the success of an individualized program and to the fullfillment of the stated goals.

Concurrently, the Department of Research and Evaluation, Division of Planning, Research and Evaluation assisted directors and staff of the Developmental Center, of the Department of Special Education in the evaluation of four projects. The Department assisted in planning and implementing the evaluation of each project and contracted consultants with expertise in the training of handicapped children to act as third party evaluators. A Coordinator of Title III-Evaluation Special Education worked with consultants to set up an evaluation program designed to assess the implementation of the projects in terms of their objectives and to provide feedback so that the program might have maximum impact on the handicapped child.

Evaluation techniques used in the projects included not only observation of the children's behavioral changes, but also some or all of the performance measures; tests, analysis of diagnostic tests, anecdotal records, and cumulative records. Evaluation data were also gathered from social workers, psychiatrists, parents, teachers, principals, and project directors by means of conferences, interviews, and records.

This final report contains a summary and a consultant's detailed, systematic and objective evaluation of each of the four projects. In their reports the consultants examine the extent to which the projects meet their stated objectives, comment on the strengths and weaknesses, the successes and failures of the projects, and offer recommendations. Some statistical data that describe selected aspects of the programs are included. However, because of the nature of the problems of the children and nature of the data collected, all data were not amenable to statistical analysis. Therefore, some subjective judgments regarding the progress of the children and the success of the projects have been made.

Project Summary

Title: Development of Linguistic and Conceptual Ability in Aphasic Children

Group Served: "Aphasic" Children

Project Location: Grant Elementary School

Title III Funds Allocated: $11,374.00

Number of Children Served: 12 Students

Background and Rationale:

Begun in 1969 with a class of six children, this program was designed to provide a curriculum for children with receptive and/or expressive language disabilities.

Although the language problems of the children were similar, experience revealed a variety of types of children, and a total new approach to development of procedures and curriculum resulted, and a second class emerged.

The two classes were grouped into categories: (1) children who were functioning at age level in every area other than speech and language, but whose abilities were relatively high; (2) children whose severe language difficulty suggested other pathological problems, and who would not be expected to function at the level of group one.

A mini-curriculum broken into component parts, each geared to specific hierarchical skills was developed to meet individual needs.

Project Objectives-Continuation:

A. To provide a comprehensive developmental daily public school program with emphasis on language reception and expression for twelve children.

B. To provide for each child within this larger group specific activities geared to meet his exact needs. For each activity he will be fitted within a smaller group of peers who have problems quite similar to his.

C. To document all activities, including each stage within, so that this methodology evolved and tested will be available for future groups of children.

D. To provide students in training, and teachers interested in the problems of the language handicapped an opportunity for visitation and observation.

E. To make the public and other professional agencies aware that such a program exists so that children can be referred and receive proper treatment at an earlier age in the future.

Project Methodology:

An additional class made possible the division of twelve children into two different groups according to age, size and needs. Class A comprised the younger children (4-7) who had severe language difficulties apparently resulting from psycholingusitic problems of unknown origin; Class B comprised the older children (7-10), which included among others, children who were functioning at age level but not yet ready for a regular classroom situation. The two classes were integrated in many of the activities. This allowed each group to make contact with larger or smaller peers who had problems similar to their own.

Evaluation Plan:

Initially, medical and audiological testing was completed on each child. The process continued in the second year when a second class was added. However, in addition, the two teachers assigned to the classes screened, assessed and selected students for the second class, and decided placement for some of the more advanced students in the original class. Student's progress in both classes were constantly studied and assessed by several measures: profiles, monthly reports, pre and post tests, use of a portable Sony Video Tape Recorder, and interviews with parents.

Also, on-going evaluation included the assistance of Dr. Grace Steinberg, a psychiatric consultant of the P Street Clinic in the District.

In addition to the on-going evaluation, a consultant was employed on a contract basis, and was assisted by the staff from the Department of Research and Evaluation, Division of Planning, Research and Evaluation.

Results:

Progress in these classes was apparent. According to pre and post tests Class A showed a marked improvement; Class B showed moderate improvement. Linguistically Class B showed improvement on all word-classes and syntactic classes. Improvement in Class A was not as significant.

Comments and Recommendations:

The evaluator felt that this program was effective in many respects in enhancing the learning of language and of concept of the children enrolled. However, a much stronger program may result from the addition of a personnel trained in the psycholinguistic aspect of speech and hearing.

Introduction

The project entitled "Development of Linguistic and Conceptual Ability in Aphasic Children" began in 1969. The project was designed to provide the beginning of an educational program for language disabled children within the public schools of the District of Columbia. It is now completing its second year of operation.

Originally six children with "lack of speech and language ability" were included as target population. During the second year the strength of the target population was doubled. An additional class was added. The twelve children had a speech and language disability without severe motor involvement, hearing loss, mental retardation, or emotional disorders. There were _4_ boys and _2_ girls ranging in age from _4_ to _7_ years in one class and there were _6_ boys and _1_ girl ranging in age from _7_ to _10_ years in the other class. They came from varied socio-economic and racial backgrounds. There were two class room teachers, two teaching aides, and a training director.

The classes met 5 days a week for approximately five hours each day and were held at Grant School, situated at 22nd and G Streets, N.W., in Washington, D.C. The purpose of this project from which these two classes stem is to provide a comprehensive language development program for the children who are enrolled. Additionally, the project is also committed to provide comprehensive programs to enhance the conceptual ability of these children.

Thus, the undertaking of this program is to develop the linguistic and conceptual ability of the children with problems in language, speech, and comprehension domains.

Objectives

The following were the objectives of the present evaluation:

1. To assess the comprehensive language development programs.

2. To evaluate the linguistic materials and non-linguistic materials used in the classrooms.

3. To determine the success of the diagnostic team involved in testing the children upon entrance and at other pre-determined intervals.

4. To examine the methodology of treating the "aphasic" children.

5. To determine the effectiveness of the in-service training of the teachers and graduate students concerned with the education of the language handicapped children.

6. To report on child's pretest and post test speech and language performance and competence and conceptual ability using (1) percent phonemic errors, (2) presence vs absence of predictable phonological rules, (3) errors in handling some word-classes of "space" and "time" type, (4) errors in handling some syntactic classes, and (5) errors in handling words which carried controlled conceptual criteria.

An Assessment of the Comprehensive Language Development Program:

The concept of using a developmental criteria entailing linguistic model in training language handicapped children is laudable. The accomplishment of this goal depends upon a sound understanding of the theoretical framework of this approach and upon a knowledge of psycholinguistics and sociolinguistics. This evaluator feels, however, that the program entitled "Development Linguistic and Conceptual Ability in Aphasic Children" in its present form does not substantially emphasize psycholinguistics in a comprehensive way.

The program consists of approximately twelve children, two classroom teachers, two teaching aides, and a training director. (There are many other professionals involved with these children, e.g. musician, psychologist, etc.). The training director was involved in the supervisory capacity.

The twelve children have been put into two different classes based mainly upon chronological age rather than upon developmental criteria.

Class A - has children from age 4 to 7 years.

Class B - has children from age 7 to 10 years.

The grouping of the children may have been more useful if it had been based upon language development rather than upon age as the criterion. In agreement with the earlier evaluator, I feel there are wide individual differences among the children in each class. For example, B.T. in class A showed complete lack of speech, language, and conceptual ability during both the pretest and the post test conditions whereas J. in the same class showed almost normal speech and language behavior. Most of the children make predictable errors which could be accounted for by the developmental phonological rules. For example, while E. in Class A makes articulation errors which were predicted by two phonological substitution rules at the pretest and only one phonological substitution rule at the post test E. - in Class B made such articulation errors that greater number of substitution rules were needed to explain their occurrence.

Both teachers in Classes A and B are Speech Pathologists with adequate training in the field. However, specialized training in psycholinguistics or sociolinguistics would be of great value in the training of the children. The directors and the teachers are conscientious; they work hard with the children; they are highly professional in their attitudes. Training in psycholinguistics and sociolinguistics would be of assistance to the teachers in solving problems of speech and language in the present milieu. These qualifications are very important in the effectiveness of the job being done in the training of Aphasic Children and children with other linguistic problems.

The activities planned for a regular day seemed to be followed strictly. (There were occasional breaks in the pattern, e.g. educational tours). They were routine activities, hence, were repeated every day. The children in the program seemed to have fallen into a routined predictable pattern. They knew what was coming next; some seemed somewhat bored. Language acquisition activities ought to have been more varied for a speedy and more comprehensive acquisition.

An Evaluation of the Linguistic Materials and Non-Linguistic Materials Used in the Classrooms:

The materials used by the classroom teachers seemed to have been generated on sound judgement and not always based on linguistic and conceptual models. There are in existence psycholinguistic techniques which could be effectively used in teaching language skills. Teaching language skills entails teaching linguistic rules at the syntactic, semantic, and morphophonemic levels. These rules can be taught systematically from the simplest to the most complex stages using different simulated and live situations. For example, in phonology words entailing front stops and open mid vowels are less complex and easier to learn as compared to the words entailing voiced palatal fricatives. In syntax negative and passive sentences are more complex and difficult to learn than kernel sentences. Knowledge of these rules are essential to success in training language handicapped children.

The teachers' use of pictures, play materials, blocks, toys, slide projectors, etc. is a useful technique in teaching language in both class rooms. However, their almost random usage does not fully utilize these materials in the way most conducive to teaching linguistic rules. The use of the above materials and also the use of different colors was adequate to teach concept. Class B was more effective in this regard. The procedures of the teacher were versatile. She has very carefully incorporated the words and concepts of everyday use in the training sessions. For example, the provision of sketched models to paint was a very significant means to teach concept.

The program director's idea of six students per class is an excellent one. A teaching aide can attend to three, and the teacher can attend the other three. Communicating with a group of three in learning situations is considered ideal.

To Determine the Success of the Diagnostic Team Involved in Testing the Children and at other Predetermined Intervals:

A much needed diagnostic approach--one of the multidisciplinary nature--was lacking in this program. For example, the children might be seen by a neurologist before being diagnosed aphasic. At the same time the audiologist, social worker, nutritionist, and a pediatrician may form a solid team in confirming the diagnosis of the speech pathologist and neurologist. A child in this program should be evaluated as a "whole" child: a product of a give psycho- and sociolinguistic background. The two classroom teachers were the two main diagnosticians. They received assistance from the program director. The program director designed and selected the tests.

What criteria are used to select children for this program is not known - except that they are taken from the waiting list of children selected by the school system for various apparent language and speech deficiencies. The tests that were designed to measure progress of children in the ongoing programs lacked desired validity.

To Examine the Methodology of Treating the "Aphasic Children":

The methodology involved requires superior theoretical framework and structure. It was difficult, for many reasons, to maintain this superiority in this program. There is one positive aspect which certainly facilitates methodology and that is the training of the classroom teachers as professional speech pathologists. They are very patient, pleasant, and aware persons. This is an aspect conducive to learning language and concepts.

To Determine the Effectiveness of the In-Service Training of the Teachers and Graduate Students Concerned with the Education of the Language Handicapped Children:

Six students from George Washington and Howard Universities received some training in this program. There were occasional visits by other students from George Washington University. A truly effective coordination of the resources of the graduate students from local universities in this program may have been of greater value to both the children and the trainees. The trainees should have been under supervision of a professional person (preferably provided by the institution from where they came) other than the classroom teacher.

To Report on Each Child's Pretest and Post Test Performance:

In the framework of an experimental design, this evaluator tested the children enrolled in this program at Grant School under the title "Development of Linguistic and Conceptual Abilities in Aphasic Children." The children were tested twice during the year for the comparison of their pretest achievements with the post test achievements. The criteria used for testing the children were (1) errors in articulation and discrimination of the sounds of English in the context of meaningful words; (2) number of deviations in terms of the inherent phonological rules of the individual children; (3) the command of the word-classes of different types of the English language; and (4) the command of the syntatic types of the English language.

The following procedures were used in testing the children on each of the four criterion:

(1) For testing the articulation and discrimination errors of the sounds of speech each child was seated in a relatively isolated area of the respective classroom accompanied either by the classroom teacher or the teaching aide, Mrs. Vails, and the present evaluator. At some instances the evaluator was assisted by his research assistant. A homemade picture vocabulary test was performed in which a great deal of cooperation was given by the classroom teachers. The test entailed asking a child about an object, for example "apple" (what the object was) and the child responding. If the child made errors of either producing or perceiving a sound, the responses were tallied on a typical articulation test response sheet. Percent errors were computed for articulation scores and the substitution errors were used to derive phonological rules of these children. (2) The test involving grammatical word classes was administered for a competence

rather than a performance oriented task. Thus, the children were tested in live or simulated situations. For example, in testing adverbs "here" and "there" the children were asked to bring a "chair here" and to take a "chair there." The competence of handling the verbs "bring" and "take" was tested simultaneously.

(3) The test involving syntactic classes was also administered for competence rather than a performance oriented task. For example, in order to test the competence of a child in his handling of a negative sentence he was shown a "pen" and asked "Is this a book?". This response was marked wrong only if he responded positively or if there was no response at all.

(4) The morphophonemic rules were tested in the context of the sentence. For example, the prescence or absence of a plural rule was tested by such sentences as "This is a dog" and "These are two ____." The child was asked to fill in the blank orally. He was stimulated auditorily as well as visually. In other words, a picture of a dog was associated with the first utterance and a picture of two dogs with the second utterance.

The per cent error for (1) phonemic substitution, (2) word class errors, (3) syntactic errors and (4) morphophonemic errors were computed. An additional criterion of phonological rule was used to analyze the severity of language problems of these children.

RESULTS

This section is divided into two parts: (1) the individual performance of each child in both classes and (2) the performance of Class A and Class B as a whole.

B.S. (Class A): His pretest phonemic errors were 42% and post test errors were 15%. He had the following pretest substitutions: In the initial position: b/w; b/v; 1/r; s/ʃ. In the medial position: d/v; b/d; s/ʃ; and in the final position b/v and s/ʃ. Final consonants of the clusters were substituted for the clusters themselves. His post test substitutions were: In the initial position d/v and in the medial position b/v; w/v; and θ/dʒ.

His pretest performance on phonological level of acquisition was: stop/fricative and front/the most closest back and his post test performance was (1) stop/fricative.

There were 50% errors made for prepositions by B.S. when tested for the criterion of word-class in both the pretest and the post test conditions. In syntactic test he made 100% errors for negative, negative-query, and query sentences in pretest and in post test his error scores for negative was again 100%, negative query 100%, and query 89%.

While testing the morphophonemic performance of B.S. we found that he made no errors for plurals either in the pretest or in the post test. In testing concept formation in classifying pictures, however, his pretest errors were 100% while his post test errors were 50%.

He is an echolalic child who lacked the concept of animate and inanimate classes of nouns during pretesting. During the post testing, however, he was able to make this distinction. On most of the five levels of testing it appears that B.S. has gained from this program most specifically on his phonemic scores.

J. (in Class A). Her pretest and post test phonemic errors were 9%. She had the following pretest substitutions: In the initial position: f/θ; in the medial position f/θ and in the final position also f/θ. The same errors were present in post test condition.

Her pretest and post test performance on phonological level of acquisition was: front/the most closest back.

J. made no errors when tested for the criterion of word-class in pretest and post test conditions. In the syntactic test she again made no errors in the pretest and post test conditions.

While testing the morphophonemic performance of J. we found that she made no errors for plurals either in pretest or in post test. In testing concept formation in classifying pictures, again she made no errors in both pretest and post test conditions.

For all criteria of linguistic competence and performance J. was a normal child.

E.H. (in Class A): His pretest phonemic errors were 56% and post test errors were 19%. He had the following pretest substitutions:- In the initial position: d/l. f/θ, s/ʃ, t/tʃ, d/z; in the medial position: l/n, b/v; and in the final position: b/p, t/d, g/j, t/s, d/z. His post test substitutions were: in the initial position f/θ, g/d ; and in the medial position: f/θ;

His pretest performance on phonological level of acquisition was: (1) stop/sonorant, (2) stop/fricative, (3) front/back and his post test performance was front/back.

There were 100% errors made for adverbs, 50% errors for prepositions, and 70% errors made for pronouns made by E.H. in both pre and post test conditions. In the syntactic test he made 100% errors for affirmative, negative, negative-query, and query sentences in pretest condition. In post test his error scores for query were reduced to 89%, the scores remained the same for affirmative, negative and negative-query.

While testing the morphophonemic performance E.H. made 100% errors for plurals in both the pretest and post test conditions.

In testing concept formation in classifying pictures, again, his pretest and post test error scores were 100%.

He is an echolalic child who lacks concept of animate and inanimate classes of nouns.

E.H. showed good improvement for his phonemic criterion but a poor performance for linguistic criteria.

J.K. (Class A). His pretest phonemic errors were 41% and post test errors were 23%. He had the following pretest substitutions: in the initial position: b/v, d/z, b/ð; in the medial position t/ʃ and p/f, and in the final position t/s and b/v; in the post test condition; in the initial position b/v, d/z, and in the medial position t/ʃ.

Phonologically in the pretest condition J.K.'s substitution rules included (1) stop/fricative and front/most closest back and in post test condition (1) stop/fricative.

There were no errors in the word-class or in the syntactic class either in the pretest or in the post test condition. His errors for morphophonemic rule of plural were inconclusive. There were no errors in the category of concept formation.

J.K. has improved on his phonemic scores significantly. His post test scores on all five criteria show that linguistically and conceptually he is a normal child.

C.P. (Class A). Her pretest phonemic errors were 56% and her post test phonemic errors were 55%. Her substitutions in the pretest included: in the initial position b/p, b/f, d/t, b/j, b/l, t/θ, t/ʃ, t/tʃ, t/s, d/z, d/dʒ; in the medial position p/k, b/f, g/h, b/j, t/ʃ, t/tʃ, t/s, d/z, d/dʒ; and in the final position p/k, b/f, b/j, t/ʃ, b/ð, and d/z. The final consonant of the cluster is substituted for the cluster itself. In the post test condition in the initial position b/p, p/f, b/v, t/ʃ, t/tʃ, t/s, d/z, d/ð, d/dʒ; and in the medial position b/p, b/f, b/t, b/v, t/ʃ, t/tʃ, t/s, d/z, d/ð, d/dʒ; and in the final position she drops all consonants.

Following phonological rules from C.P.'s substitution errors were derived in the pretest condition (1) stop/fricative, (2) stop/sonorant, (3) voiced/voiceless and (4) front/most close back. In the post test condition (1) stop/fricative (2) front/most close back and (3) voiced/voiceless.

In the category of grammatical class or word class, there were no errors either in the pretest or in the post test category. For concept both pretest and post test showed no errors. In the morphophonemic class there were 80% errors in the pretest and post test conditions.

Both linguistically and conceptually, C.P. is a normal child. Her problems of articulation errors and morphophonemic errors are of performance type and have no bearings on her linguistic ability to comprehend.

B.T. (in Class A). On all five criteria in both pretest and post test conditions he made 100% errors. There were no improvements found on him.

D. (in Class B) has pretest errors of 60% and post test errors of 63%. The pretest substitutions were: In the initial position d/g, t/ʃ, b/v, s/ʃ, t/s, d/z, in the medial position t/p, t/θ, b/v, s/ʃ, t/tʃ, t/s, and d/z; and in the final position t/ʃ, the substitution the final consonant of the consonant cluster for the cluster itself. In the post test condition the substitutions were: In the initial position b/p, n/m, f/θ, b/v, f/ʃ, t/tʃ, t/s, d/z, d/dʒ; in the medial position t/p, n/m, j/w, d/t, b/v, f/ʃ, t/s, d/z; and in the final position f/ʃ, t/s, d/z. Final consonant of the cluster was used for the cluster itself.

The phonological errors were substitutions of: (1) stop/fricative, (2) voiced/voiceless and front/back. The errors of the front/back type were more serious in the sense that the front was not replaced by the most close back sound.

He made no word-class or syntatic errors either in pre- or in post test condition. In testing morphophonemic rules D had 100% errors in pretesting and 80% in post testing. There were no errors in concept formation tests.

E. (in Class B) has pretest phonemic errors of 14% and post test phonemic errors of 5%. The pretest substitutions were in the initial, medial, and final positions f/θ and ʃ/tʃ, d/ð and also in the initial position. In the post test condition the errors were: In the initial position d/ʒ, t/tʃ; and in the medial position t/θ.

Phonologically the substitution that E. (in Class B) makes can be described by the following rules (1) stop/fricative, front/closest most back. In the post test condition the rule was stop/fricative.

In the pretest of word Class E had 17% errors for nouns, 13% errors for verbs, 50% errors for prepositions, and 10% errors for pronouns. However, there was no error in any of these classes in the post test conditions.

In syntax and morphophonemic classes there were no errors. Also there were no errors in concept formation.

L.C. (in Class B). His pretest phonemic errors were 96% whereas his post test phonemic errors were 63%. In the pretest he substituted /p/ for all sounds except /b/ which was correct. In post test his substitution errors were: In the initial position p/f, t/ʃ, t/s, and p/t; in the medial position p/f, t/ʃ, p/t, b/d; and in the final position b/v, d/z, t/ʃ, and t/s.

Phonologically, whereas his pretest substitutions showed no regular patterns, his post test substitution could be explained by one or by two rules: (1) stop/fricative, and (2) front/closest most back.

L.C.'s word class errors in pretest conditions were 67% in noun, 75% in verb and adverb, 100% in adjectives and prepositions and 60% in pronoun. His post test errors were 50% for noun, 63% for verbs, 50% adverbs and adjectives, and 100% for prepositions and 10% pronouns.

Morphophonemically his score was improved 20% in the post test condition. For concept he made 100% errors in both pretest and post test conditions.

His phonological acquisition during the three month period has been strikingly remarkable. His pretest scores show absence of any phonological rule whereas his post test scores showed that all his phonological errors could be accounted for by the developmental rules.

B.C. (in Class B): His phonemic errors in pretest conditions were 10% and in post test conditions were 13%. His substitution in pretest were: In initial position t/θ, d/ð, t/ʃ and in the final position f/θ. In the medial position he had no substitutions. In the post test his substitutions were: in the initial position t/θ, dʒ/j, b/v, tʃ/ʃ, and in the final position s/ʃ. He had no medial substitutions.

Phonologically B.C.'s rules of substitution can be written as: (1) stop/fricative, (2) front/closest most back in the pretest condition and stop/fricative, (2) front/closest most back and (3) stop/sonorant in the post test.

He made no errors either in pretest or in post test conditions in testing word-class. He had 50% error in query in the pretest and 33% in the post test. There were no errors in any of the other syntatic classes. In testing morphophonemics B.C.'s pretest scores showed 100% errors whereas post test scores showed zero percent errors for plural formation. For concept he made 11% pretest error and zero percent post test errors.

B.C. seems to have only marginal language and speech problems which may stem from his bilingual background. His error of dʒ/j is a typical substitution for the Spanish speaking learners of English. B.C. has improved considerably in the program.

L. (in Class B). His pretest phonemic errors were 20% and post test errors were 3%. The pretest substitutions were: In the initial position f/θ, v/ð, in the medial position f/θ, v/ð, and in the final position f/θ and v/ð. In the post test conditions there were w/r substitution only in the initial position.

Phonologically, L's pretest errors can be written by such rules as: (1) front/back, (2) stop/fricative. His post test errors; (1) front/ closest most back (2) glide/ retroflex.

L. did not cooperate to be tested for word class, syntactic class, morphophonemics or concept formation either in pretest or post test.

L. seems to be an echolalic child whose performance appears to be all right but his competence was not testable.

J. (in Class B). Her pretest phonemic errors were 25%. The substitutions entitled k/g, d/t, f/θ, and s/ʃ at the IMF places. She was removed to a regular class set-up. Therefore there are no post test scores on her. J's word class, syntatic, morphophonemic, and concept formation test results showed no errors at the pretest condition. Again, since she joined a regular school she does not have post test scores on the above test criteria.

T. (in Class B) had pretest errors of 14% and post test errors of 8%. His pretest substitution were - t/θ, s/ʃ, d/ð, in the initial position, t/θ, s/ʃ, d/ð, in the medial position and sʃ in the final position. He used the final consonant of the consonant clusters as a substitution for the cluster itself. His post test substitutions were t/ʃ in the initial, medial, and final positions. Phonologically, his rules could be described as (1) stop/fricative in both pre- and post test conditions. He had no errors in the test criteria of word class, syntactic class, morphophonemic class and also in the test criteria on concept formation.

His speech, language, and concept formation test results did not indicate any deficiencies.

Pretest and Post Test Comparisons of the Overall Performance of Class A and Class B:

Figure 1 (See Appendix) shows that in terms of the decrement of the percent errors on the phonetic substitution criteria Class A showed marked improvement whereas Class B showed moderate improvement. This is a predictable phenomenon since the Class A dealt with younger children (4-7) and Class B dealt with older children (7-10). The younger children overcoming substitution errors both through therapy and normal maturational processes.

On the criterion of phonological rules all children (except B.T.) made developmentally predictable errors: Front/closest more back and stop/fricative. The children who made other errors e.g. voiced/voiceless would be considered to have additional problems. In general there were some improvements in both classes on this criterion. A special mention needs to be made for L.C. in Class B whose phonological acquisition has been one of phenomenal magnitude. At the pretest condition L.C. had no phonological rules that he used while at the post test condition he used such rules that could be predicted by normal acquisitional processes of phonology.

On the criterion of "word-class" Figure 2 (See Appendix) shows the results of Class B only. The bargraph shows that the percent errors for the different word-classes in the post test condition (in Class B) were markedly decreased. This was not true for Class A.

Figure 3 (See Appendix) shows the results of the pretest and post test conditions on the criterion of syntactic classes for Class B only. The bargraph shows that the percent errors for the different syntactic classes (Affirmative, Query, Negative, or Negative Query) in the post test condition (in Class B) were markedly decreased. This was not true for Class A. The errors in Class A on the criterion actually increased.

In testing morphophonemic competence it was found that the overall errors of Class A increased from 53% to 63%, whereas the overall errors of Class B decreased from 66% to 40%. On the concept formation test the percent errors of Class A decreased from 50% to 42% and of Class B 35% to 31%.

In conclusion, then, on the phonemic scores (performance) Class A showed a marked improvement from pretest to post test whereas Class B showed moderate improvement. On the linguistic scores (competence) Class B showed improvement on all word-classes and syntactic classes whereas Class A showed no improvement at all.

Recommendations

Some of the children enrolled in this program may have some language learning disabilities and some may have serious learning problems. One seems to have very serious problems. It is important that these children receive the concentrated attention of persons thoroughly trained in language and speech.

These children may do better if they remain in the program. They need special help. However, the director should reevaluate the program. A rigorous and an extensive diagnostic team should be organized: members would include a psycholinguistic, a sociolinguist, a speech pathologist, an audiologist, a clinical psycholinguist, and a social worker, although the services of these specialists might only be required two or three times during a year. The children should be diagnosed by specialists. A psycholinguist should be employed as a consultant to develop and evaluate tests, to help teachers plan methods and materials and to evaluate the progress of the individual child.

The selection of children for a class should be governed by their diagnoses. A child with marginal adjustment problems like Miss J., who has been transferred to a regular school, or one with the problem of foreign accent like B.C. should not be given the label of "aphasia" and placed with children like Little G. or L.

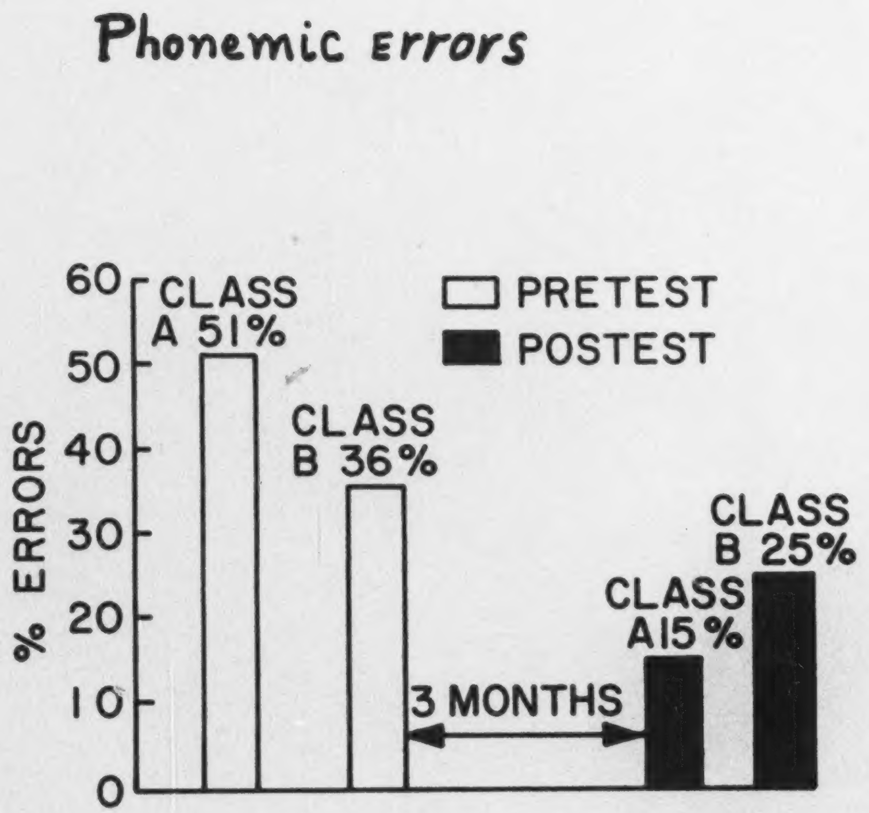
Recent psycholinguistic (McNeil, Miller) and sociolinguistic (Labov, Stewart) materials should be utilized in the program. Also, more release time for group meetings with classroom teachers, aides and other staff members should be provided. An urgently needed addition to the staff is a speech pathologist or psychologist with a very strong background in psycholinguistics and sociolinguistics.

Throughout this report, mention has been made of the importance of training in psycholinguistics and sociolinguistics. Cognizance should be made that the project teachers do possess many characteristics invaluable to those working in this area. They are conscientious, competent in the area for which they have been trained, eager to help, patient and understanding with the children. These traits are very important and not easily found in people willing to work in this sort of situation.

Acknowledgement

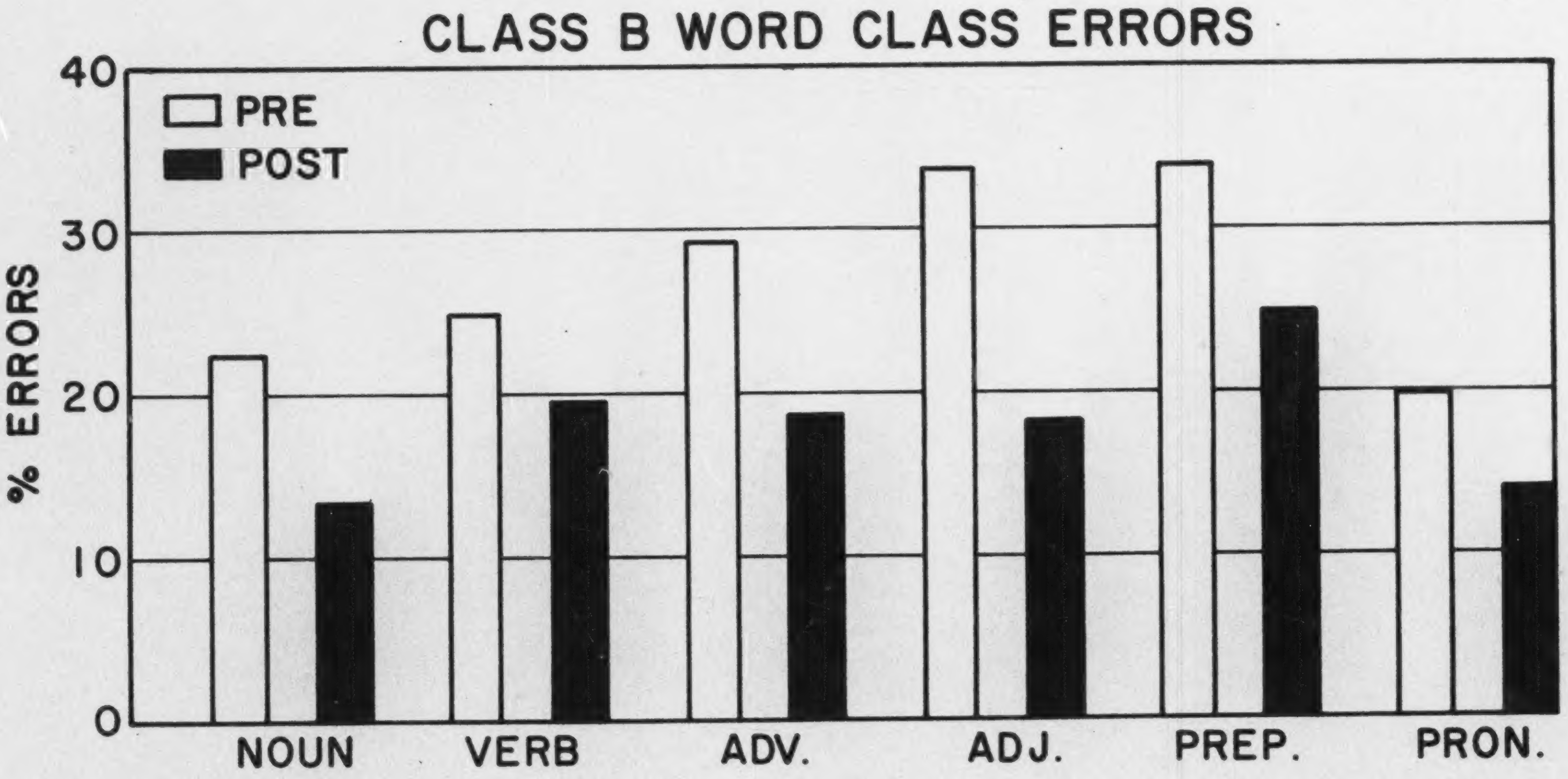
The author acknowledges Mrs. Lavolia W. Vails with appreciation for her help in testing and evaluating process, and more importantly for editing this text.

Figure 1



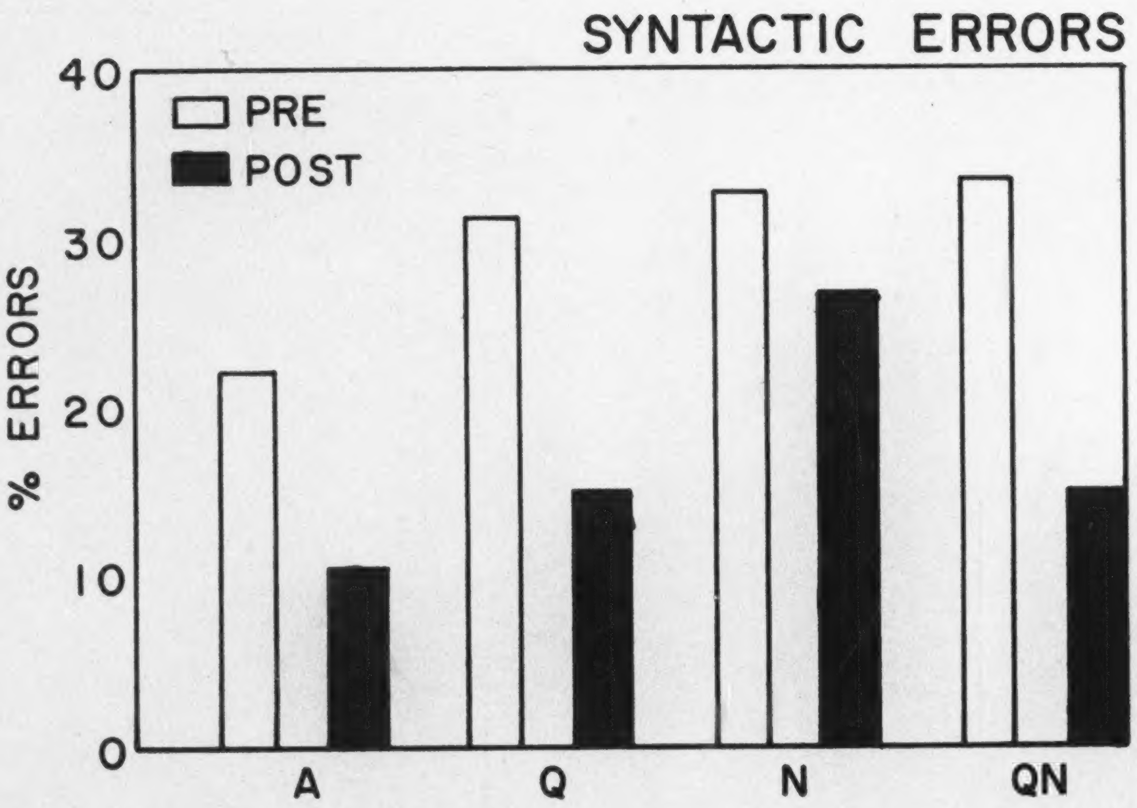
Bargraph shows the phonemic errors in percent in both classes under pretest and post test conditions.

Figure 2



Bargraph: shows the word-class errors in percent under pretest and post test conditions. The abscissa lists the six word classes.

Figure 3



Bargraph shows the syntactic errors in percent under pretest and pretest and post test conditions. The syntactic classes included: Affirmative, Query, Negative, and Negative Query.

Final Evaluation Report

ESEA Title III Special Education Project

Rubella Children: A Complete School Program

Prepared by: Dr. Donald W. Brown, Ph.D.
Associate Professor of
Education & Psychology
Graduate School
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Project Summary

Title: Rubella Children: A Complete Program

Group Served: Multiply-handicapped, hearing-impaired children including pre-schoolers

Project Location: The Developmental Center; Grant Elementary School

Title III Funds Allocated: $22,480

Background and Rationale:

Funded under Title III, the first class for Rubella Children began in 1969. This was the first program of its type in a public school in either the District of Columbia or surrounding states. The program ended the first year with exemplary success.

Although several objectives were accomplished, it was felt, as indicated in the initial proposal, that more time was needed for experimentation in order that a more diversified program could be established.

The director and teachers profiting by the daily contacts with the children, and the recommendations of the evaluator proposed a continuation project for the year 1970-1971.

Project Objectives-Continuation

1. To provide a full-time instructional program for three types of sensory impaired children
    a. Deaf-Blind
    b. Deaf-Retarded
    c. Deaf-With language capability
2. Develop pertinent curricula for all three types of children.
3. Provide for integration of the children into regular classes whenever possible.
4. Utilize additional enrichment approaches in the areas of:

    Art - including tactual stimuli for the deaf blind.

    Music - including creative experiences for even the deaf.

    Movement and Dance - which are especially important for orientation and the development of Kinesthetic judgment.

5. Develop methodologies for teaching language skills in conjunction with Project LIFE.

6. Provide a laboratory for the training of teachers.

Project Methodology:

Sixteen multiply-handicapped children from four to nine years old participated in the Rubella Project. Each child had such a great hearing impairment that he needed special training and the assistance of electronic equipment to help him acquire and develop communication skills. The children were grouped into the following three classes according to the handicapping conditions which had already affected their intellectual development: 5 deaf-blind children; 6 deaf-retarded children; and 7 deaf children. The age range of the children is from four to seven years.

Evaluation Plan:

Pre- and post tests were administered, which provided health, psychological, and educational information about each child. Teachers kept individual records and folders of childrens' work and progress, monthly progress reports were kept, which provided a more comprehensive view of the range and degree of student progress and teaching techniques, a pictorial documentation of the learning styles of the children, their attitudes and interaction were made possible by the use of a portable Sony Video Tape Recorder. These tapes were especially useful in on-going pupil assessment and study. Workshops, discussions, and staff meetings afforded an opportunity for the exchange of ideas concerning the program and the class.

Simultaneously, a third-party evaluator, contracted by the Department of Planning, Research and Evaluation, assessed the program. Assisted by a staff member of the Division, observations and conferences were held with director and teachers. Pre- and post tests were administered, and Interim and Final Reports were submitted.

Results:

On the basis of observation, tests, and reported written materials, the Rubella project has achieved many of its major "global" objectives. This fact is also clearly illustrated by the activities, curricula, and the progress of the students.

Moreover, the supportive services and special programs as project LIFE (Language Improvement to Facilitate Education), Body Movement, Peabody Rebus Reading Program, I.P.I. (Individualized Prescribed Instruction), and the attempt to provide training for teachers have effectively served in the provision of an individualized instructional program.

Consultant's Comments and Recommendations:

Like most new programs, the Rubella program has confronted many problems. Some of these problems exist because of the lack of complete control by the project administration. For instance, the Rubella Project is typical of most new programs, in that many children referred to projects do not always fit the project's goals and services. Frequently "problem" children are referred to these new resources; these referrals are often late in the year which creates new problems because of difference in the new enrollees and the ones already in the program.

In spite of problem areas, the Rubella Project has achieved its major goals. A final third year - should be devoted to a "finer" look at organization, materials and techniques which achieve specific academic and social goals for individual students.

Rubella Children: A Complete School Program

Final Evaluation Report

Donald W. Brown, Ph.D.

Introduction

Predating, by several decades, the current emphasis on early childhood education, educators of hearing impaired children have long been convinced that instructional intervention in the preschool years is essential. As early as 1929 some programs were accepting children as young as eighteen months. Even before that time (beginning, in fact, in 1888) correspondence courses were available to parents of hearing impaired youngsters. Lexington School for the Deaf in New York, St. Joseph's Institute in St. Louis, Missouri, and many others have enrolled children from the ages of two and a half to three in classroom programs since the early 1930's. While curricula and approaches have varied, the common emphasis has been intensive training of language and communication skills.

Because of this establishment of programs, development of techniques and training of personnel, conditions were relatively favorable when the number of preschool hearing impaired children was markedly increased by the Rubella epidemic of 1963-1965. But not favorable enough. Many existing programs found their number of applicants as much as three times as great as in previous years. Many city school systems which had not typically enrolled preschool children of any category and had relied on state and private educational programs for instruction of young handicapped children, began to receive pressure from parents and others to themselves provide programs. In addition, the possibility that children whose hearing loss was caused by maternal Rubella would have additional sensory, intellectual or physical handicaps raised the question of the appropriateness of previous procedures and materials. The need then was not simply for more agencies to get involved, but for research and development to both extend and improve services. This need was further complicated by the fact that many hearing impaired children of school age were actually functioning at preschool or kindergarten levels because of the lack of early intervention.

In response to this situation the Special Education Department of the D. C. Public Schools began, in 1968, to survey the community to assess the number of such children requiring special services. Upon obtaining that data an ESEA Title III proposal was submitted and accepted in January, 1969, with the intention of establishing a public school program with the following objectives:

A. Identification and Evaluation of Children Objectives

1. To identify children with handicapping conditions related to hearing and vision for whom special classes must be provided.

2. To obtain an estimate of the number of classes that will be needed.

3. To obtain specific information about the learning abilities and/or disabilities of individual children.

B. Formation of classes

1. To prevent hearing loss from having an adverse impact on the child's total personality, preparing the child for his role in life in general and school in particular.

2. To provide the earliest, most skilled instructional program possible providing the handicapped child with opportunities at least equal to the non-handicapped child.

3. To prevent an unnecessary lag in language development through early training and education thus giving the child opportunities for optimal language abilities.

4. Continuance of educational diagnostic services.

5. To establish preschool and kindergarten classes for handicapped children as an integral part of the District of Columbia Public Schools in cooperation with other district agencies.

6. Plan for as early involvement as possible with regular school programs to prepare child for eventual placement in regular class with special training to be provided when necessary.

By the end of the first year of the Project, three classes were in operation - one designated as deaf-blind, one for deaf-retarded children and the third for severely hearing impaired children with presumably good language capability. Eighteen children were enrolled in these classes at the time of the first annual report and ranged in age from four to nine years. Several other children had been evaluated by the Project or Developmental Center Staff, given interim services and then placed in appropriate programs. Exemplary progress had been made in overcoming the organizational problems confronted by any new program, establishing a full time instructional environment, utilizing appropriate equipment and materials and facilitating the social, academic and linguistic learning of a heterogeneous group of children with multiple problems and needs.

Having accomplished the goals of identification and class placement, the Project staff were able, during the second year, with which this report will deal, to concentrate on the following objectives related to refinement of curricula and services:

1. To provide a full time instructional program for three types of sensory impaired children:

    a. Deaf-Blind
    b. Deaf-Retarded
    c. Deaf - with good language capability

2. Develop pertinent curricula for all three types of children.

3. Provide for integration of the children into regular classes whenever possible.

4. Utilize additional enrichment approaches in the areas of:
    Art - including tactual stimuli for the deaf-blind
    Music - including creative experiences for even the deaf
    Movement and Dance - which are especially important for orientation and the development of kinesthetic judgment.

5. Develop methodologies for teaching language skills in conjunction with Project LIFE.

6. Provide a laboratory for the training of teachers.

The second year of the Rubella Project will now be described and discussed in terms of the above objectives.

FULL TIME INSTRUCTIONAL PROGRAM

At the time of this report, 16 children were enrolled in the three classes, and attending school five days a week from 9:30 a.m. to 2:30 p.m.

Deaf-Blind Class

Since the initiation of this class in January, 1969, nine children with varying degrees of auditory and visual impairment have been enrolled. Two children attended for the first semester and transferred to a local program for the hearing impaired. One child, with minimal visual deficit, was able after a year and a half of special work in this class to transfer into the third class in this Project. A fourth child moved from the area at the beginning of the spring semester, 1971.

The class currently consists of 5 children, ranging in age from 6 years, 8 months to 8 years 2 months. Only 1 child in the group is over 7 years of age. Housed at Magruder School, the class is conducted by a full time teacher, trained both in education of the deaf and education of deaf-blind, and a full time aide. A summary description of some of the pertinent handicaps and backgrounds of the children will clearly reveal the task involved in providing an appropriate and intensive instructional program.

T.M., a girl, age 8 years, 2 months, and the oldest in the class, entered the class in September, 1969. She was a premature baby, weighing 1 lb. 11 oz., has lived at Junior Village, and has been extremely difficult to diagnose auditorily and visually. Educational placement had been short term at two different facilities, and in the opinion of the referring programs' staffs was not appropriate or productive. Her hearing loss, although never definitely assessed is presumed to be severe to profound. Vision with glasses is "near normal" but in need of a great deal of further training for functional use. Psychometric data (Leiter, June, 1970) indicates an IQ of 52.

R.W., age 6 years, 10 months, entered the program in September, 1970, and thus has just completed one full year. At the time of admission, he displayed frequent temper tantrums, resisted all approaches by others, cried, hit his head and put all objects in his mouth. The exact degree of his hearing and visual deficits have never been determined, but a definite evaluation should be possible shortly as a result of his training and improvement of behavior.

D.P. is 6 years, 9 months old, was a premature birth, weighing 4 lbs. 15 oz., has a cataract in his left eye, considerable vision in his right eye and a severe sensori-neural hearing loss of 75-85dB in both ears. Psychometric evaluations have suggested at least average intelligence.

V.N., age 6 years, 9 months, has been in the program since March, 1969. He has little or no usable vision due to congenital cataracts and was diagnosed at the age of 2 1/2 as having a significant hearing loss. Audiometric examinations in April, 1970, yielded an average bilateral loss of 80-100dB. A Merrill-Palmer IQ of 48 (6/2/70) was qualified by the statement that he "was doing little more than vegetating 9 months ago."

T.J., age 6 years, 8 months, spent approximately 1 year at Pilot School for the Blind. Audiometrically and clinically she appears to have almost normal hearing but does not consistently respond to sound or to appear able to understand connected language through the auditory channel.

Having experienced misdiagnoses, or at least delayed and vague diagnosis, misplacement, and repeated failure in many areas of life, these children constituted a gargantuan challenge even in the rudimentary areas of socialization, attending, responding to instruction and use of whatever vision and/or hearing they possessed.

The class program has included group and individual work in visual and motor perceptual skills, oral communication, auditory training, vocabulary, self-help skills and, for two of the students, word recognition skills. Visual aids such as pictures and filmstrips have been appropriate for some of the partially sighted children in this class and have been successfully used. Introductory work in number concepts has been presented through Individually Prescribed Instruction (IPI) readiness materials, which will be further discussed in a later section. A sample of year end individual progress reports which is included in Appendix I illustrates both the extent to which major objectives are being attained and the variation required in programs for each child.

Progress in "learning to learn" has been exceptional for at least three of the five children. All of the children have shown improvement in social behavior. An appropriate program still needs to be developed for R.N., the last child to enter the program, but even he has progressed in self-control and attending.

Much more utilization of individualization is necessary, however. Time is not always put to optimal use, sight saving materials are not regularly used and Braille, which has been strongly recommended for two of the pupils, has not been introduced. More specific performance goals need to be established for each child and pursued through well established teaching strategies. Conferences have been held with the teacher about these areas and some improvement has already been noted.

Deaf-Retarded Class

This class, located at Grant School, and consisting of six children is currently referred to as the Preschool Deaf Class, a term much more descriptive than the original one of the type of children enrolled and the program. While each of the pupils in this class and the other two classes in the Project have been "retarded" to some extent academically, linguistically and/or socially, it has become quite evident that such "retardation" is not a property of the child but the result of lack of training.

At present, the children attending this class range in age from 5 years, 2 months, to 6 years, 10 months. The class was not operational in its present form until January, 1970, and only one of the current children entered at that time. The others were placed in September, 1970, with the exception of the oldest child in the class who did not enroll until May, 1971. Only one of the five children had had any previous training.

The program provided is typical of many quality preschool programs for hearing impaired children. Emphasis is placed on providing a rich language environment with as wide a variety of experiences as possible on which to build language concepts, an awareness of the value of communication and socialization skills. A brief but inclusive picture of the components of the program is revealed in the following teacher stated year-long objectives:

"A. The children should be able to perform matching tasks of numerous types: objects, pictures, colors, things that go together, Rebuses, and then match these categories between one another.

B. The children should be able to indicate which one of a set does not belong.

C. In accordance with A and B the children should be able to indicate if two objects or pictures are 'the same or different.'

D. The children shall be able to lipread and produce the language taught in class. R shall learn as many manual signs as we can supply him with, as well as continue working on speech production.

E. The children should auditorially be able to distinguish on and off of a stimulus, and fast and slow. They should also be able to pick up a steady rhythm played on a distinctive instrument such as a drum, or clapped.

F. The children should have new experiences and relate them to language (i.e. the farm, the circus).

G. The children should be able to read those Rebuses developed in the first three quarters of Readiness Book One, as well as those Rebuses developed especially for classroom use.

H. The children should improve in terms of body movement language as determined by Joanne Weisbrod's rating system and their performance in movement sessions.

I. The children should become more aware of their sensory abilities, other than visual, as judged by attempts to smell, taste, touch, and hear things in their environment and/or their reactions thereto.

J. The children shall develop self-confidence as determined by how they take initiative in various classroom situations and; how they embark on new experiences.

K. The children shall become aware of the numeration values and names of 1, 2, 3, 4, 5, as judged by their ability to use them in day to day activities and work in the IPI math series. The more advanced students may work through 10.

L. The language taught in class shall reflect the daily needs of the children, their occasional sometimes traumatic experiences (i.e. doctor, dentist) and new experiences to broaden their horizons or deepen them (i.e. fire station, farm, zoo)."

Individual and group work is given in speech, auditory training and perceptual skills. To support these activities the classroom is amply equipped with work and play stations, a "store" corner, enclosures for pets, bulletin boards which are both attractive and instructional, auditory training equipment and room for small and large group activities.

Field trips are a frequent component of the class' program and are designed to increase vocabulary, general knowledge and a wider contact with the environment.

Many of the special curricula projects which will be discussed later are consistently used with these children. Reading readiness work is approached through the Peabody Rebus program. Basic concepts of size, shape and numbers are presented in the Individually Prescribed Instruction series and by means of teacher prepared materials. All of the children have participated in the Body Movement project (described in a later section of this report) and have improved in general motor coordination and physical expression.

The teacher of this class, while relatively inexperienced, has utilized suggestions of others, explored different approaches and techniques and worked extremely hard at making her instruction meaningful and productive. Over the period of this evaluation progress has been seen in each of her students and particularly in the crucial areas of language and communication. For a description of the individual progress of the students, see Appendix II.

One of the problems experienced in this class has been shared, but to a lesser extent, by the other two classes in the Project. The implementation of a full time instructional program has been hindered by the unreliability of the bus transportation system. Children in this class arrive at school anywhere from 8:30 a.m. to 10:30 a.m. Two children are almost never at school prior to 10:15 and with the others time of arrival varies so considerably as to make planning for each day's activities extremely difficult. The Project Director has repeatedly tried to obtain better service from the bus drivers with little success. As departure time also varies and appears rather arbitrary this is a situation which affects the programming of almost every school day.

Without minimizing the disruptive effect of the erratic transportation arrangements, it must be stated that "staggered" arrivals of children can be an advantage. An alert teacher will capitalize on periods when only one or two children are present for intensive individualized activities. Unfortunately, this was not being done at the beginning of this evaluation. Children who arrived early simply played or engaged in rather unstructured art activities which could have been scheduled for a less optimal time of the school day. Discussion with the teacher by the Project Director and the evaluator have led to a more constructive use of this time. Steps are being taken to provide further materials and training of the teacher in capitalizing on opportunities for working on specific skills with individual children.

Deaf Kindergarten Class

Located at Grant School, this third class, originally designated as "Deaf - with good language capability," functions as a kindergarten - transition class. The six children currently enrolled range in age from 6 years, 8 months, to 6 years, 11 months, and have moderate to profound sensori-neural hearing losses.

In many ways this class is the hub of the Rubella Project. Children are transferred into this group from the Preschool class, and occasionally from the Deaf-Blind class, when they have advanced in their academic and social skills. Children are also transferred out of this class into the 1st grade hearing impaired classroom which is also located at Grant School.

A close relationship has been established between the Preschool, Kindergarten and 1st grade teachers and a productive sharing of ideas, materials and activities has resulted.

The classroom used by this group has been skillfully set up by the teacher and aide and during the frequent observations made by this evaluator, ample evidence has been seen of a stimulating, appropriate maximizing of learning opportunities. Relying on Project LIFE language materials, the Peabody Rebus program and individually prepared reading booklets, the teacher has greatly increased vocabulary, reading and communication skills of each of the children.

The summary of classroom activities, which follows, is taken from the 1970-71 Progress Report submitted by the teacher of the class and reflects the scope of instruction and planned experiences observed by the evaluator in more than a dozen classroom visits.

"The class has been bombarded with oral, visual and kinesthetic stimuli for language with emphasis on comprehension and production. The children were taught the individual sounds, and then how to put them together for words. They were shown how to recognize and write these sounds to form simple words and sentences, and then to turn these tools into oral language.

The children have worked on all the consonants except q, r and x. They have worked on all the long vowel sounds. From individual sound recognition we have gone on to phrasing and reading of simple sentences.

Lipreading has been taught informally, using commands, prepositions and adverbs in formal situations.

Reading of simple sentences and books was introduced this year. Several original books were developed from experience situations.

Auditory Training was carried out with talking books, records, instruments, the Language Master.

Calendar Work was used to teach days of the week, months and time sequence. Telling of time by the clocks was started.

'News' was used to develop language and to give concrete words for parents to drill on at home.

Perceptual training and reading readiness were carried out with the 'Project Life' Series and other supplemental work.

Trips of all kinds were embarked upon to give them many and varied experiences and to build up their confidence and security.

Basic math concepts of number identification and number sequence was taught.

Art forms for animals and people were taught with the help of overhead transparencies."

A description of individual progress of each of the students is found in Appendix II.

One of the carefully worked out learning activities is the individual speech session. During the news period in the morning, each child discusses, with much teacher's help, an object he has brought from home. The language that is written on a chart by the teacher is copied onto a Ditto master by the aide. The ditto sheets produced are then used by the teacher as a basis for working on the speech of each child in a 15 to 20 minute tutoring session. (Appendix III, A, B).

Excellent utilization of a teacher aide is displayed in this class. The aide has been well trained by the teacher; can conduct small group activities; prepare meaningful materials and extend incidental learning of the children in a very competent manner. Such functioning by the aide has enabled the teacher to have frequent conferences with parents, prepare helpful records and reports and evaluate the progress of her students.

General Comment

Much progress has been made by the majority of children in this Project. The teachers and Project staff do not take their work lightly and are constantly striving to improve. The resolution of one particular problem, however, could, in the opinion of the evaluator, be of great benefit in establishing a more efficient full-time instructional program.

Two of the three classes in the Project are located in Grant School. The third class is housed in the Developmental Center at Magruder School. This arrangement is less than optimal in terms of teacher interaction and coordination, administration and guidance of the program's functions and opportunity for the children to interact with other children of similar age. The latter problem is particularly acute for the Deaf-Blind class. There is only one other group of children in that school and it is considerably older. The Deaf-Blind children thus have almost no opportunity for socialization activities apart from their own small and atypical group.

The two teachers who work at Grant School have the difficult, and frequently time wasting, task of reporting to two supervisors. As members of the Rubella Project staff they are responsible to the Project Director and receive almost all consultative help and direction from that source. As part of a research project their goals and procedures, as well as their student population, differ markedly from other classes at Grant School. But as members of the Grant faculty, these teachers must report to the Assistant Principal, attend stated meetings and function, in effect, as full-time employees of two jurisdictions.

It is the evaluator's opinion that the program could be improved by having the three classes housed in the same building and coordinated by one person. This arrangement would afford opportunity for more frequent classroom visits by the Project Director, more exchange of information and suggestions by the three teachers, better utilization of equipment and materials, and increased opportunity for appropriate social interaction for the children in the Deaf-Blind class.

DEVELOPMENT OF CURRICULA AND SPECIAL PROJECTS

It has been the goal of the Project Director and the teachers to not only provide on-going educational services but to explore and assess the value of various techniques and procedures. Prior to a discussion of some of the specific programs which have been used, one significant impression should be noted. That impression relates to the lack of any evidence from this Project which would suggest that the "Rubella" label on a child produces the need for radically different instructional procedures.

The children have not represented a homogeneous group in spite of almost identical etiology. Records, observations and individual student evaluations suggest that the initial or entering behaviors and the progress of the children in the three classes have been more a product of home and school training than of any organically based syndrome. Thus an attempt has been and is continuing to be made to tailor curricula to specific behaviors and behavioral goals.

A description of some of the special projects being employed will illustrate the range of concerns which have characterized this program.

Project LIFE

A cooperative endeavor between the Developmental Center for Special Education and Project LIFE (Language Improvement to Facilitate Education), sponsored by Media Services and Captioned Films, Bureau of Education for the Handicapped, HEW, has been in operation since Fall, 1970.

On November 12, 1970, a workshop was conducted in which the concepts and equipment of Project LIFE were explained to the teachers. Shortly after, teaching machines and materials were placed in the Preschool and Kindergarten classes.

Consisting of programmed filmstrips in Association, Discrimination and Language, the materials are individually used by each child on a regularly scheduled basis. The materials consist of a specially designed teaching machine, filmstrip projector, screen and programmed filmstrips designed to develop understanding and use of language concepts. Pre-tests are given to determine the placement of the student in the learning sequence and records are kept of error rate and completion of each unit.

Although the original intention was to field test the Project LIFE system in all three classes of the Rubella Project, insofar as possible, the Kindergarten class is the only one in which the program has been fully implemented. The Preschool teacher began using the materials but unfortunately did not appear able to utilize them as child-controlled, rather than teacher-controlled, learning experiences.

In the Kindergarten class, very good progress was seen and the teacher contributed valuable information to the Project LIFE staff who provided regular consultation and endeavored to capitalize on any suggestions for modification of the programs or procedures. All of the children completed the Perceptual Series, both the Association and Discrimination parts. Two of the children entered the Language series and completed almost all of the sections of Unit I. The teacher carefully coordinated the Project LIFE work with the Peabody Rebus reading program and there was some evidence that the perceptual-cognitive training provided by the LIFE filmstrips facilitated the learning of reading for at least three of the children.

In addition to the programmed filmstrips, Project LIFE has provided reading books and ditto masters dealing with simple nouns, the present and present progressive tenses, colors and children's names. These aids have been quite effectively used by the Kindergarten teacher.

Body Movement

Since September, 1970, a program to improve the general motor expression, including rhythm, movement, creativity and relaxation of these children has been conducted. A Movement Therapist working with the teachers and aides, visits each class two times a week and holds a 30 minute session.

Teachers and therapist report a reduction in tension for most of the children, an enjoyment of the freedom of activities which has resulted in making several of the children more out-going in other situations, and a beneficial supplement to auditory training and speech activities.

Many of the activities of the program resemble interpretative dance and provide opportunity for introducing stories, enriching language and developing the skills of imagination. While questioning some of the psycho-dynamic interpretations of the therapist as to channeling "hostile and agressive use of energy" the evaluator does recognize a value in the components of the approach which focus on breathing, rhythm, posture and spatial relationships.

Peabody Rebus Reading Program

A rebus is a symbol or a picture which represents an entire word or a part of a word. In the Peabody program the rebuses used are pictorial, geometric and/or abstract. The goal is to introduce children to reading by having them first learn a vocabulary of rebuses in place of spelled words. The Rebus materials are being used in the Preschool class to introduce reading and in the Kindergarten class, in a modified manner, to support other reading exercises.

In observing the children, it has been obvious that they enjoy these materials and several are able to read entire Rebus paragraphs with success and satisfaction. The Preschool teacher made the most extensive use of this approach to reading, extending it into the writing of experience stories, auditory training, number work and story telling. Her children completed workbooks which not only developed reading skills but supplemented other work in matching skills, color awareness and basic language. In the Kindergarten class, because of the students' more advanced functioning in reading, rebuses were used to supplement other activities.

Individually Prescribed Instruction

In January, 1971, the Developmental Center for Special Education contracted with Research for Better Schools, to provide training and materials in their Individually Prescribed Instruction (IPI) approach to mathematics. A 3-day workshop was held for all teachers in Development Center programs, including the teachers of the Rubella Project.

At the present time the teachers in this Project are continuing to prepare readiness materials and are introducing concepts which are needed for beginning the IPI series. Work has been done on concepts of "large," "small," "larger," "smaller," counting and grouping. The teacher of the Deaf-Blind class is able to use many of the materials with two of her children and the other two teachers are enthusiastically working with the materials with their entire group.

PROVISION OF A LABORATORY FOR TRAINING OF TEACHERS

In some ways this was an overly optimistic objective. The major task of the Project staff has been to organize, conduct and improve an educational program. The staff, in effect, has been in a learning stage itself, one in which procedures have been explored, assessed and, in some cases, modified or discontinued. An attempt at training others at this point could be argued against as premature.

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Responsibility to other community agencies and individuals has not, however, been ignored and much time and effort has been expended by Project personnel in dissemination and training. All of the classes have been visited by groups and individuals interested in learning about programs for multiply handicapped hearing impaired children. Video tapes have been made by the Project staff to demonstrate procedures which they are using. Brochures have been distributed describing the Project's goals and some of its functions.

Each of the three classes has had students from George Washington University serving as aides and student teachers. These students have been majors in speech and hearing or in a few cases, psychology, and while requiring time from the classroom teacher, have been able to make a variety of contributions.

As the Project becomes even more established, the training function can be extended. The Project Director is well aware, however, that a great deal of time is required by a small program to coordinate such activities. The evaluator would add the caution that further refinement of curricula and diagnostic teaching techniques should take priority.

Discussion

One of the problems confronting most new programs is that they do not have complete control over the types and numbers of children they can enroll. Established programs get early referrals; potential feeder agencies are often unaware of the new program as a resource. This situation makes it impossible to select from a large population and to enroll only children who perfectly fit the project's goals and services. What happens in practice is that existing programs refer "problem" children to the new resource. To complicate the problem these referrals are frequently made in the middle of a semester and the children involved, while obviously requiring service, often are quite different in many ways from the target population that the new project had in mind.

The Rubella Project has been subjected to many of these problems. Many of the children who were not accepted elsewhere and have been enrolled in this project are not truly "Rubella" children. Many are older than the Preschool age which was of paramount concern. The Project staff's resourcefulness, flexibility and genuine compassion has been admirably displayed in their handling of placement and teaching problems caused by this situation; nevertheless, some diminishing of optimal effectiveness has resulted.

A second problem, or class of problems, shared by almost all new programs is that the goals and objectives are frequently stated more specifically and behaviorally than the teaching is conducted. The innovativeness and awareness of a Project Director is not always matched by the teaching skills of his staff. In the Rubella Project a host of different approaches and programs has been tried; many of them entirely new in concept and application to the teachers responsible for utilizing them. Due in part to lack of familiarity with certain concepts and in part to the pressures of time, the teachers have not always been able to provide an on-going instructional program, which they understandably perceive as their primary function, and at the same time systematically assess the value of each procedure they are using. Even when an outside evaluator is retained, the absence of pre- and post-measures of student performance stated in behavioral terms makes it very difficult to justify the retention or discontinuation of a given procedure.

In spite of the above problems, the Rubella Project has clearly achieved many of its major "global" objectives, as illustrated by the foregoing description of activities, curricula, services, and student progress. The Project is now at the stage, in the opinion of the evaluator where a third and final year should be devoted to a "finer" look at organization patterns, materials and techniques which achieve specific academic and social goals for specific students.

Appendix I

INDIVIDUAL PROGRESS REPORT

September 1970 - June 1971

Student's Name: J. N.
Birthdate: 11-21-64
Class: Deaf-Blind (Rubella)

J. has shown a favorable change in mental, social and mobilitive development day by day this school year. His parents seemed to have been impressed deeply enough to establish their confidence in him.

His improvement has been noted as follows:

1. Language development:
   He has learned to recognize a few words and been able to print them from a given sample such as: Joe, book, bus, ball and car.

   Besides that, he can also associate the following words with actions, colors or objects: Walk, run, jump, bow, red, black, yellow, pants, shoes, eyes, mouth, flag, Mrs. Cheng, Mrs. Russell and D.

2. Number Concepts:
   Can grasp the number concepts up to 2.

3. Communication Skills:
   (a) Reacts to the others - Just in this past spring he began reacting to D.'s attempts in "chatting" with him. Since then they became playmates to each other. This is a big breakthrough that J. shows in contact with his peers via communication.

   (b) Expresses himself - J. showed no way of knowing how to ask for help as do other Deaf or Deaf-Blind children at time when help is needed. Considerable effort has been made in teaching him the simple way in which he can let the others know that he is in need of help. Encountered with many frustrations, he has eventually been taught to do this initiatively. This makes him look closer to normal even as a deaf-blind child.

4. Development in Vocalization: Efforts have been made, whenever it is possible and warranted to make him open his mouth for other than eating in the last school year, which he has been doing successfully.

   Then he proceeded to learn "ar" and "F" sounds with great success. However, for the time being, nothing of a nature of more than a preliminary preparation in vocalization is planned for him as he is not ready for oral communication yet.

5. Mobility: Shows remarkable improvements.
   (a) Finds his way to go where he is supposed to go.
   (b) has smoothed his posture at walking or running to a certain extent, but still needs more improvement.
   (c) dances imitatively and immediately when the record player is turned on.
   (d) has improved in perceiving the spacial environment relationship surrounding him when he moves around.
   (e) Participates enthusiastically in activities like jumping, crawling, playing ball, etc. body-movement in a group.

6. Attitude toward school: According to his mother, J. has now become fond of coming to school. He pushed his mother's hand away from him and hurried up to the bus as soon as he saw the school bus stop in front of their apartment.

7. Attitude toward work: Although he still needs one-to-one tutoring and supervision, he has shown more and more interest in joining with the class activities. In short, he is now like another child, completely different from what he showed in May of the previous year.

8. Sensory motor development:
   (a) Eye-hand coordination - needs to improve more.
   (b) Tactual sensation: has made good progress.

9. Self-care skills:

Performance showed / Skills taught	Showing no sign of progress	Showing inconsistent response	Improving Steadily	Excellent success
Toilet Training				X
Pull zipper down				X
Pull zipper up				X
Put toys back into cabinet				X
Go get the milk (responding to gesture)				X
Wipe the table (imitatively)				X
Put on shoes			X	
Put on socks			X	
Fold up sleeping mat			X	
Unbutton the coat		X		
Button the coat	X			
Put on his coat properly		X		

INDIVIDUAL PROGRESS REPORT

September 1970 - June 1971

Student's Name: D.P.
Birthdate: 11-18-64
Class: Deaf-Blind (Rubella)

Language Level

D. does not have much difficulty in understanding the class news which is developed each morning. He shows his comprehension through actions. (see sheet on vocabulary.) He finds it very hard to remember the spelling of words. Beginning in the second semester, language lessons for him have been focused on the reinforcement of what he has learned: Reviewing the old vocabulary when the new pattern of phrases and sentences are taught.

Communication Skill

(1) Continue to learn signs.
(2) Has started to learn finger spelling.
(3) Can use gestures to express himself excellently.
(4) Expressing himself by drawing showed a beginner's success in April.

Handwriting

Print - Has been improved a great deal. Lately he can copy class news fairly well.

Speech Development

Has shown a break through in producing some elements - repeat about 25 words after the teacher. Even though he is not yet able to say them spontaneously, an achievement like this seemed like a dream for him last year.

Speech - Reading

In the spring he showed his readiness and has been learning a little bit since then.

Number Concepts

Can count up to 7.

Handwork

Begin to show effort in shaping objects with clay.

Social Adjustment

Good progress. Has learned (1) to say "Thank you" to those who helped him; (2) to wait for his turn patiently; (3) to help the others; (4) to show more maturity in judging what is right and what is wrong; (5) to be enthusiastic toward work; (6) display potential leadership qualities.

D.P.'s Vocabulary of Speech
1970-1971

Class: Deaf-Blind

Words or sentences taught	Child repeats after the teacher	Can reproduce it when asked	Can say it spontaneously	Enounciation needs to be improved
ball	✓	✓		
boy	✓	✓		
boat	✓	✓		✓
baby	✓	✓		
hello	✓	✓	✓	
fish	✓	✓		✓
flag	✓	✓	✓	✓
bath	✓	✓	✓	
David	✓	✓	✓	
Thank you	✓	✓	✓	✓
bye bye	✓	✓	✓	✓
we love our flag	✓			✓
dog	✓			✓
car	✓			✓
bus	✓	✓		
home	✓	✓	✓	
mother	✓			
red	✓			✓
black	✓	✓	✓	✓
shoes	✓			✓
pants	✓	✓		
paper	✓			
water	✓			✓
face	✓	✓		
how are you	✓			✓

September 1970 - June 1971

APPENDIX II
Individual Progress Report

K.G.

General: K.G. has shown more growth than any other student in the class. The first semester was slow going but this semester he has shown excellent growth in all his skills and he is generally accepted by the class. He still sucks his thumb but not as frequently as before.

Emotional Growth: Has been very good. He now only sucks his thumb when ignored or frustrated. He holds on to many baby traits such as refusing to try anything that he thinks is difficult. It no longer bothers him if the class does not accept him. He is quite happy participating in an activity of his own choosing. He loves to act silly for the benefit of the class but for the most part they ignore him.

Social Adjustment: K. has made great strides in the field of social adjustment to the class. He no longer gets upset if he is not accepted. Since J.J. joined the class K. feels superior. He enjoys and participates in outside activities. He is very fond of the bus driver, "Wade", who is very kind and gentle with him. He has a very silly walk that he uses when he is self-conscious.

Academic Progress: For K. has been good. He surprisingly scored 7.2 (C.A. 6.6) on the Hiskey-Nebraska test. He scored 9.0 on Picture Identification, 9.0 on Completion of Drawing and 8.6 on Picture Association. K. has done very well with oral language. The first semester was mostly imitative. The second was voluntary. His painting is extremely original with good color sense and good design. His writing still lags but his visual identification is above average. His vision impairment does not seem to retard his learning skills.

Parental Relationship: Is rather obscure. He is in the care of an aged grandmother most of the time because his mother works as a beautician. His father is dead. The mother has missed several appointments. They have moved recently.

Recommendations: K. should continue in the program through the transitional year to First Grade. If he keeps up his present rate of progress he may eventually be able to handle a regular grade with good supportive help.

Individual Progress Report

A.G.

General: A.G. works and achieves remarkably well. She would be a happier child if she were not so worried about acceptance. She tilts her head to one side. It probably started because of her vision impairment. Despite exercises and mirror drills to change this pattern she continues to cock her head to the right, giving the appearance of insecurity and inferiority.

Emotional Adjustment: A.G. needs constant affirmation that she is performing well. She gets along very well with M.W. her bus "friend". She is wary of W.G., her "rival" scholastically. She seeks affectionate demonstrations of others' approval. She gives the appearance of being excessively shy. She does not volunteer but always accomplishes a task if encouraged.

Social Adjustment: A.G. is slightly lost since the other girl in the class has been transferred and the ratio is now five-to-one. She is more outgoing when the full complement of boys are not in class. Her mother says that she uses a loud voice quality at home but this is seldom displayed when adults are in the room.

Academic Progress: For A.G. is excellent. She can imitate all the consonant and vowel sounds and makes most of them voluntarily and independently. She uses whole sentences but must be encouraged to speak. She reads easily. She can count to ten and read the printed word for the number. She can identify and name the different shapes and sizes. Despite her visual handicaps she quickly grasps all concepts. She is very quick perceptively. She is slow in art and skills that require a full visual field. Her reasoning powers are good. A.G. scored 6.9 (C.A. 6.3) on the Hiskey-Nebraska test, scoring low in bead patterns and visual attention span and high in memory for colors and picture association.

Parental Association: Mrs. G. is a kind, wholesome, lovely person who has given A. a very happy, normal outlook on life. Mrs. G. is cooperative and works daily with A. A. seems to love her mother, but is not wholly dependent on her.

Prognosis and Recommendations: A.G. will continue to do well. She is certainly working to the height of her ability. A. would profit from more gross motor activities, i.e., swimming, ball throwing and running games, to help her confidence and overcome her vision handicap. A. will be able eventually to function successfully in a regular class with good supportive help. For the next year, I think it advisable for her to remain in the next grade in this program.

Individual Progress Report

R.F.

General: R.F. is an attractive six and one-half-year-old boy with personality plus. He has a moderate to severe sensori-neural hearing loss in both ears (58 db-68db) as a result of maternal rubella. He wears a Maico B H hearing aid and has recently been given a "Y" cord. He has good residual hearing.

Emotional Adjustment: For R.F. is excellent. He loves to entertain the class and knows that he is a comic. He still cries when he does not get his way or cannot do something that he chooses. He is learning to walk, though it is more natural for him to run.

Social Adjustment: Has never had to be made by R.F. He is a natural with people. I understand that he is not well behaved on the bus, however, he rides for two hours in the morning and the afternoon.

Academic Progress: R.F. has surprised me this year with his learning agility. His attention span is still short, but he is quick to recognize, learn, write and associate words. He is speaking in full sentences voluntarily. Identifying, counting and writing numbers is his favorite pastime. He will paint a very accurate squad car, complete with sound effects, but his painting is not versatile. Crafts do not interest him and he has trouble finishing the task. Lately his perceptual skills have improved. R.F. scored 7.0 (C.A. 6.6) on the Hiskey-Nebraska test.

Parental Relations: Apparently all the discipline in the family is father-oriented. R.S.'s mother does not even try to control his actions. Probably his great entertaining qualities come from an appreciative mother audience.

Recommendations and Prognosis: R.F. has made such strides this year that he can probably handle a regular kindergarten or first grade class with above average supportive help. If it is possible to keep him in the program for another year, I think that it would be adviseable. I do not think that he would benefit by association with normal hearing children.

Individual Progress Report

W.G.

General: W.G. is a handsome, strong six-and-one-half year old boy with a profound bilateral sensori-neural hearing loss as a result of maternal rubella. W.G. wears a Radio Ear hearing aid, model 980, with a "Y" cord.

Emotional Adjustment: Has been good. He now gets on the bus willingly in the mornings and comes to school with a smile on his face. He cried frequently in the beginning of the year when he could not have his own way, or when he was corrected. These situations are almost non- existent now. He likes to compete and to be first. He enjoys correcting the others in the class and showing them how to do something.

Social Adjustment: W.G. is keenly aware of the activity of the others in the class. He competes, but with the idea that he should win. He has not appeared with nail polish this year. He tried to dominate M.W. earlier in the semester but since then he has not shown any favoritism. He is a very stubborn child who will still cry occasionally if thwarted, but quickly realizes when he has gone too far. He is very rigid in his schedule.

Academic Progress: Is excellent. He is reading and writing easily. On his own initiative he will copy words that we are using in the daily "News". His perceptual skills are excellent. He does not like crafts or art but he can produce a very accurate reproduction of an object. W.G. scored 7.1 (C.A. 6.3) on the Hiskey-Nebraska test. He scored low in bead pattern but high in Picture Identification, Paper Folding and Memory for Color. He is reluctant to wear full amplification and often turns off his hearing aid or Phonic Ear.

Recommendations and Prognosis: W.G. should probably start to learn a manual form of communication. I do hope this can be provided for him in the present program. He has made a nice social adjustment this year and it would be better not to upset this. His voice pitch is still high, and though he has made excellent progress in vocalizing, it is still single words and not always understandable. W.G. has made excellent progress, he will have no problem acquiring his scholastic skills. His speech will be his biggest problem.

Individual Progress Report

J.J.

General: J.J. came into the program in February after spending two years in Turner School. He is wearing a temporary, behind-the-ear hearing aid. J.J. has a bilateral hearing loss, primarily sensori-neural in nature, severe in the right ear, and low normal to severe in the left ear. He is subject to seizures caused by diabetes. Dr. Silverman commented that he is unhealthily thin. His mother says that she feeds him at home, and that he eats very well. This has not been true at school.

Emotional Growth: J.J. is babyish and spoiled. He will not try to achieve unless it suits him. He is a lap-sitter and wants constant attention. He shakes his head "no", and refuses to cooperate. He will cry if he does not get his way.

Social Growth: J.J. was immediately rejected by the group when he came in February. This did not bother him. He has more hearing than the others, but he is not as advanced in his skills. He should have more and better speech than he does. He is adjusting very well in the last month.

Academic Progress: J.J. scored 5.3 (C.A. 6.3) on the Hiskey-Nebraska test. His best score was Picture Identification and Association. It took him several weeks to master the Project Life machine technique. He would get discouraged easily. He vocalizes and imitates easily. He can imitate all words and he uses sentences. He uses many infantile sound substitutions. He can write his name, but has poor judgement of relative letters. He matches and identifies words. He can read with the help of rebuses. He is unsure about numbers.

Recommendations: J.J. should stay in the program for another year on the Transition-First Year level. With maturity and good supportive help he should be able to manage a regular class and wearing a hearing aid all the time. He needs more auditory training.

Individual Progress Report

M.W.

General: M.W., the shy little lad who refused to participate last year has really come out of his shell. He giggles and laughs and enters into everything. I am concerned that M. does not wear his hearing aid except during the school hours.

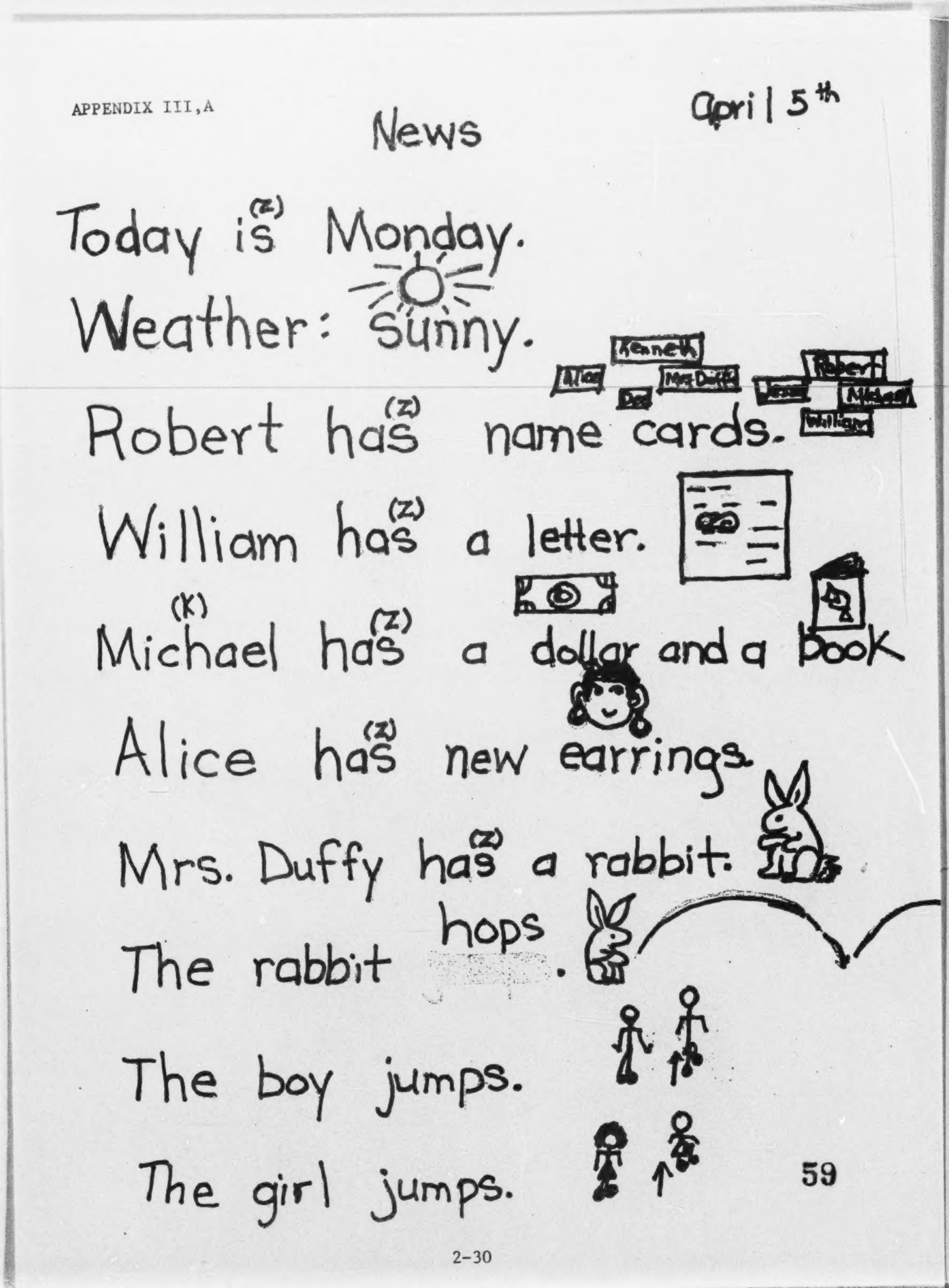
Emotional-Social-Adjustment: Is fine. He has achieved the rung of security in the class where he can make fun of the others and threaten them. He is happy to come to class and to go home. He loves to run errands, and always comprehends what is asked of him. He makes friends with the others on the bus because he is well coordinated and not a cry-baby.

Academic Progress: M.W. has learned to read some words. He produces many words orally and voluntarily. He never fails to repeat words, and handles two syllables now. He is unsure of his number sequence, but he identifies numbers. His art skills are good. He has matured, and his perceptual skills are very good. M. scored a 6.5 (C.A. 6.7) on the Hiskey-Nebraska test, a very large jump from the 4.9 score of last year.

Parental Relations: M.W. has lived with his grandparents during the week, even though the new baby and mother have taken an apartment. There are several other grandchildren living there also. The grandmother had a stroke several months ago. She is back home now, but unable to do much. The grandfather is to be commended for getting them off to school, even though M.W. needs a bath quite often. However, he is always bubbling with good humor and gaity.

Recommendations: M.W. should continue in the program for another year on the transition level. It will take another year of training to determine whether M. can eventually keep pace with a hearing-impaired class. M. started his training late. He may need manual training.

APPENDIX III,A


Kenneth
Alice
Mrs. Duffy
Dad
Robert
Jesus
Michael
William

April 5th

News

Today is$^{(z)}$ Monday.

Weather: sunny.

Robert has$^{(z)}$ name cards.

William has$^{(z)}$ a letter.

Mi$^{(k)}$chael has$^{(z)}$ a dollar and a book

Alice has$^{(z)}$ new earrings.

Mrs. Duffy has$^{(z)}$ a rabbit.

The rabbit hops.

The boy jumps.

The girl jumps.

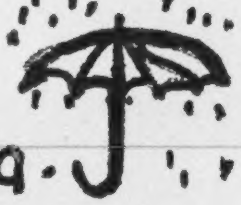
APPENDIX III,B

May 6th

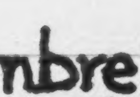
News

Today is$^{(z)}$ Thursday$^{(z)}$.

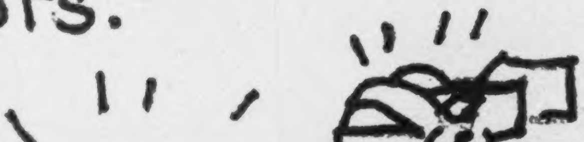
Robert has$^{(z)}$ an orange.



William has$^{(z)}$ an umbrella.



Alice has$^{(z)}$ boots.



Kenneth has$^{(z)}$ new shoes$^{(z)}$.

Jesse has$^{(z)}$ a green coin.

We live in Washington, D.C.

I live at....................

My house is (color).

Please...
Send a photo of your house!

thank you
Mrs. Duffy
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Final Evaluation Report

to

Public Schools of the District of Columbia
Department of Research and Evaluation
415-12th Street, N.W.
Washington, D.C.

Seriously Emotionally Handicapped: A program Based on Principles of Behavior Modification

(DILE - Designed Individualized Learning Environments)

Submitted by

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July 31, 1971

Project Summary

Title: Seriously Emotionally Handicapped: A Program Based on Principles of Behavior Modification (DILE - Designed Individualized Learning Environment)

Group Served: Socially, emotionally, maladjusted children who were previously uncontrollable and uncontainable in a public school milieu

Project Location: Five elementary schools: Bryan, Burrville, Crummell, Drew, and Gibbs (after several weeks, the program operated at 3 of these schools)

Title III Funds Allocated: $26,079

Number of Children Served: 35 Students

Background and Rationale:

Seven hundred sixty-one children had been identified in the District as emotionally handicapped. Some of these children were in social adjustment classes; some were in other programs or agencies for the emotionally handicapped. Many of these children were outside the regular classroom because of behavior problems. Present facilities to accommodate these children are inadequate in the Public School System. Private institutions are beyond the means of most parents with handicapped children.

Research has shown that principles of Behavior Modification applied to educationally related problems of the emotionally handicapped have netted very positive results. With this in mind, a program with considerably lower per-pupil costs than in the District's public schools was designed to provide full-time instruction to meet the individual academic and social needs of these children within the District's classrooms.

Project Objectives-Continuation:

A. To provide a full-time instructional program for seriously emotionally handicapped children specifically geared to eliminate their undesirable behavior and return them to the mainstream of public school education.

B. To conduct systematic, empirical research to demonstrate the effectiveness of Behavior Modification as an educational technique for work with seriously emotionally, socially handicapped children.

C. To involve the parents of the children in the total educational program through participation in classroom teaching as paraprofessionals followed by group seminars and discussions.

D. To provide a laboratory-classroom setting for the in-service training of teachers and graduate students concerned with the education of emotionally handicapped children.

Project Methodology:

The principles of Behavior Modification were utilized with approximately 45 emotionally handicapped students distributed in three classes. Basically, the techniques in all classes were similar, but teacher experiences and observations with the students revealed that contingencies and rewards had to be revised, modified or dropped in an effort to provide a full-time instructional program geared specifically to meet individual needs of the students.

Evaluation Plan:

In conjunction with a built-in plan of continual evaluation by the project staff, a consultant with expertise in Behavior Modification principles, assisted by a member of the staff of the Department of Research and Evaluation evaluated the project. The consultant's evaluation was based primarily upon information gleaned from direct observation in the classrooms, from discussions with teachers, aides, school-administrators, and project administrators, and pre and post tests in Reading and math based on floor levels of D. C. Public Schools. Other information was obtained from teacher records and school records.

Results:

Research has shown that Behavior Modification principles when skillfully utilized are effective in Special Education settings, or in programs designed to modify or change undesirable behaviors. The inadequate application of these principles led to less than expected results, the DILE program.

In the opinion of the evaluator for the DILE Program, a breakdown in the project administration resulted in some ineffective utilization or no utilization of behavior modification techniques as designed for the program. However, this does not negate the strengths of DILE. The general results show that the three classrooms as they were constituted were successful in varying degrees. In each class varied desirable behaviors were initiated or promoted; undesirable behaviors were decelerated or eliminated. Also attendance improved in two of the classrooms; students were contained in the classrooms, and academic progress though markedly improved on an individual basis, was not outstanding on a total basis. Complete data requested for a statistical determination of progress were not available at the time of the writing of the report. Therefore, conclusive evaluation was not possible.

Consultant's Comments and Recommendations:

The consultant's recommendations were divided into four areas: Data and Research, Classroom Management and Routine, Training, and Administration and Public Relations.

Because of the comprehensiveness of the recommendations, they are not summarized here but may be found in the FY 1970-1971 Final Report.

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I. Introduction

The application of the principles of a Behavior Modification technology to a broad variety of individual and community problems in many different settings is continually expanding. In particular, a behavioral philosophy, with its associated procedures, is being adopted by several schools in many of the nation's school systems (for instance, Kalamazoo, Michigan, Urbana, Illinois, Anne Arundel County, Maryland, Prince George's County, Maryland, Lawrence, Kansas). The growing interest in Behavior Modification and its increasingly widespread application have generated several journals and a number of national and local professional conferences focusing primarily on Applied Behavioral Analysis in Education. It is fitting therefore, that the D.C. School System has included among its efforts to improve the quality of education in the nation's capitol, a project based on Behavior Modification principles.

Project D(esigned) I(ndividual) L(earning) E(nvironments) is now completing its second year. Several basic changes in the project design evolved as various procedures were found to be effective. Project DILE is still specifically designed to develop the academic and social skills of students who have been labelled emotionally disturbed and who have not been controllable in regular classrooms. The DILE classrooms are designed to develop the skills of these children through the systematic application of Behavior Modification Techniques. These classrooms therefore, include much individualized work specifying behavioral objectives for individual students, a token (checkmark) reward system, and frequent use of positive (rather than aversive) control techniques. The DILE classrooms are also designed to provide a service to the school in which they are located. Each class, does indeed, serve its host school by accepting those students who are disrupting the regular classes throughout the school, and by providing an environment in which even these students can learn and make progress.

The general objectives as stated in the continuation grant proposal of April, 1970, are as follows:

A. To provide a full-time instructional program for seriously emotionally handicapped children specifically geared to eliminate their undesirable behavior and return them to the mainstream of public school education.

B. To conduct systematic, empirical research to demonstrate the effectiveness of Behavior Modification as an educational technique for work with seriously emotionally, socially handicapped children.

C. To involve the parents of the children in the total educational program through participation in classroom teaching as paraprofessionals followed by group seminars and discussions.

D. To provide a laboratory-classroom setting for the in-service training of teachers and graduate students concerned with the education of emotionally handicapped children.

II. Final report on DILE in J. Elementary School.

A. Interview with principal:

1) History of the project: During the summer of 1970, regular conferences with the administration of School J. were conducted. The DILE project director, the principal and counselor met to select students for Project DILE. A preliminary meeting was also held to explain the project to the parents. One requirement of the parents who were to have children in the class was that the parents be on call to come to the school to take their children home if necessary. Meetings were also held with the entire faculty of the school to explain the operation of the project. Since those early meetings, communication between the project and school administrations has continued to be frequent, useful and easy.

During what remained of the first semester after staff training, materials which remained from last year's DILE classrooms were supplemented by materials used in traditional classrooms. Curriculum materials which were requisitioned before September for this year's DILE classrooms, began to arrive only in the first week of February. In February therefore, these materials were just being integrated into classroom procedures.

2) Students: The DILE class at J. is currently composed of ten hyperactive boys aged 8-12 years from grades 3-5 inclusive, who were selected by the principal and counselor. The principal said that last year these students were "roamers, who would wander around the halls as if they had nowhere to go. They were bullies, they would run and hide in the lavoratories, they would frequently curse and shout epithets as the teachers. They had many social and academic problems. They had bad attitudes toward school, they were anti-school, disruptive, and truant."

3) DILE staff: Special training of the DILE staff delayed the opening of the DILE classroom until mid-October. Staff training in the form of workshops were to continue throughout the academic year as evidenced by a workshop in the use of the IPI math materials and a recent workshop for instruction in the use of Distar Reading Program. The principal expressed dismay that the school system could not arrange for all of its teachers to have intensive in-service training similar to that of DILE staff. He described the teacher and aide at J. as highly effective.

They have good relations with the rest of the school staff and are helpful in making available the newly acquired materials which are ordered for the DILE classroom. He stated that "it would be useful to get some of the wonderful techniques and materials used in the DILE classroom into the regular classrooms." The rest of the faculty at J. supports DILE and to date there have been no complaints about DILE. Since the beginning of the year, the teachers at J. have occasionally referred children into the DILE classroom. Three have been added since the beginning of the year.

4) Results: Thus far, only soft and anecdotal data are available to provide a feel for the project. These anecdotes suggest that other students at J. are "begging" to get into the DILE classroom. Within the DILE classroom, ten, previously uncontrollable students, are being contained, causing little, if any, trouble, and appear to be learning. Parents and other staff members have described marked changes in social behaviors of the students in the DILE classroom. One such anecdote concerns a student who last year was not in DILE and was frequently truant. This year, during the first semester in DILE, the student moved to another school district. He insisted on continuing in the DILE classroom, and special arrangements were made for him to do so. He continues to attend school regularly, even though he must walk from farther away.

5) Goals to yet accomplish: The principal was concerned with building a program to fade the DILE students back into the regular classroom. There is some indication that some DILE staff members are also concerned with this. It seems, however, that the students themselves wish to stay in the DILE program and not to be returned to regular classes. Training staff in regular classrooms to use positive reinforcement would increase the chances that students would more willingly return. Presently the project is fulfilling its own objectives as well as those of the principal and the school. It is too early to specify changes for improving the project. The principal of J. agreed that the project administration, in conjunction with the counselor at the school, will identify control subjects for comparisons on the Comprehensive Tests of Basic Skills.

B. Observation in the classroom:

1) Physical characteristics: The DILE classroom contained ten tables, ten chairs, a teacher's desk at the front and a teacher's desk at the back, one carrel which contained a Systems 80 machine, a second empty carrel, and lockers in the back for the students' wraps. Reading materials and games were located in various places around the room and were readily available to the students. No rules were posted in the room. There was a Student Check List (SCL) on each student's desk. (See attachment number 1.). Observation revealed that the schedule adhered to in the classroom is close to the schedule which was planned for the DILE classrooms.

2) Class routine:

a) Opening exercise - 9:00-9:15: Opening exercise is a time for the sharing of experiences between the students. The morning of the on-site observation, each student volunteered information concerning the recent earthquake in California. Opening exercises are led by one student each day. Each student gets his turn as leader according to the class seating arrangement. By allowing each student to lead the opening exercises, the staff hopes to develop leadership behaviors in all the students. During the fifteen minute opening exercise, each student can earn 8 checkmarks on his SCL.

b) Individual work - 9:15-10:30: From 9:15 to 10:30, students perform individual work at their seats. The individualized, prescriptive work materials are contained in separate folders for each student. Each student can complete up to six assigned academic tasks which are in his folder. He must choose one IPI math task and two reading tasks, one of which must be a Sullivan Reading task. The student must complete one IPI task and two reading tasks, plus a fourth task of his choice to earn recess which is at 10:30. The fourth task may be either a math or a reading task. Opportunity exists for each student to do at least two additional bonus tasks and earn additional checkmarks. A student can earn 5 checkmarks on his SCL while doing each task. Presently, task completion is not required to earn checkmarks. Thus a student may earn checkmarks by appearing to do work although he does not complete tasks. If a student appears to be having difficulty with a task, and it takes him longer to complete the work, he can earn double checks for completing that task. Thus, the teachers conclude that because a student takes a long task, and therefore the student should earn more checks. Thus, slow academic performance is reinforced. Task completion should be added to the SCL so that students may earn checkmarks for completed tasks. Contingencies should be arranged so that more checks are earned with each additional task completion. The daily schedule might be improved if the individual work period was terminated at 10:00 and two completed tasks from the individual period, plus one task completed in a group activity from 10:00 to 10:30 were required to earn recess at 10:30.

c) Recess - 10:30-11:00: At the end of the individual work period and before recess, the opportunity to bring the milk to the class is auctioned to the highest bidder. Payment is in the form of checks. At 10:30, a one-half hour recess, contingent on the completion of 4 academic tasks from the prescriptive folder, begins. Students who have not completed 4 tasks may do so and then join the class before 11:00, for the remainder of recess.

d) Small group work - 11:00-12:00: The small group activity begins at 11:00. The class is divided into two groups. At J., one group works separately on Distar (Reading program) while the second group works on SCIS (Science program). At 11:30, the groups switch. From 11:00-11:30, each student can earn eight checkmarks. During group work, there are 3 checkmarks available which are not available during individual work. These are for "Pays attention to teacher," "Pays attention to classmates," and "Gets along with classmates." From 11:30 to 12:00, eight checkmarks can be earned; thus, during small group activity, 16 checks can be earned.

One student who was absent during the morning arrived late with an "excused absence note." He then received all the checkmarks which he might have earned that morning had he been in school and working. This does not seem to be a wise procedure. It is a method to reinforce students who are late to school. Students who are late should be taught to accept the consequences of being late.

e) Lunch - 12:00-1:00: There is a one-hour lunch period with a recess. Some students go home for lunch, some stay in school.

f) Large group work - 1:00-2:00: During the first half-hour of this period, students may earn 8 checkmarks on their SCL. During the second half-hour of the large group activity, students may earn an additional 8 checkmarks. During the first half-hour of large group work at J., there was a class discussion on famous black personalities. From 1:30-2:00, students practiced cursive writing by copying from textbooks.

g) Free time - 2:10-2:55: At 2:00, the number of checkmarks earned during the day by each student is added up and the remaining free time from 2:10-2:55 is sold to the students. Twenty checkmarks buys 25 minutes of free time. The highest earner of the day is first to buy equipment and/or activities he wishes to use during the free time he has bought. Students may also continue individual work from their prescriptive folders rather than buy free time.

3) Observations in the J. classroom: During the individual work period, much work was being done. The students were on task during a large percentage of the time. Both the teacher and the aide gave checkmarks and assisted the students. There were periods of time however, when students had their hands up for long periods of time and staff members could not respond to them due to their work with other students. Generally, when a student raises his hand, one of the staff members responds by saying, "Thank you for raising your hand" and attempts to respond to the child as quickly as possible. The Instructional Objectives Sheet developed by the DILE project administration is presently not being used. (See attachment number 2). This form assists the teaching in sequencing the work tasks

for the students. The traditional curriculum materials used were not conducive to break down into clearly defined tasks. With the new curriculum materials, these Instructional Objectives Sheets should become useful.

A major problem consistently in evidence throughout the day was the teacher's pre-empting the behavior of the student. The teachers would behave when the students did not. During the opening exercise which is a period to develop the leadership behaviors of the student (not the teacher), the teacher began to question the students, thus pre-empting the behaviors of the student leader of the opening exercise. When interacting with individual students seemingly having difficulty, frequently, the teacher would finally provide the answer, rather than break the task into smaller components and assist the child in arriving at the correct answer. The staff must also be taught not to respond to non-working behaviors and to reinforce working behaviors, and that all of their social interactions with students (perhaps even scolding) are reinforcing events (not punishers). When a student incorrectly answered a question, the teacher responded by saying in a friendly but emotional way, "Is that really right?" Seldom were the student's correct responses followed by such an emotional or intense response. This is just one example of social reinforcement of incorrect responses.

Data were collected from 9:30-9:45. Only a small sample of behavior was systematically observed. Observations were made on the number of intervals that the students were on task, and the techniques of control used by the teachers. Sixty 15 second intervals constituted the observation period. Any off-task behavior during the 15 second interval resulted in that interval being called off-task. Thus, the particular kind of data collected made the class appear more off-task than it actually is. Each student was observed according to the seating order and six cycles of the class were made. Thus, each student was observed for six separate intervals. During sixty 15 second intervals, there were 54 examples of on-task behavior. Thus, the class was on-task 90% of the time. During those 15 minutes, fourteen instances of positive reinforcement by staff were observed. There were no instances of aversive control. See Table 1 for a summary of these data on the next page.

The individual work period at the beginning of the day seems to be too long. By 10:00 a.m. more off-task behavior was observed and by 10:30 there were a number of students waiting for things to do. In particular, these students were waiting to bid on the opportunity to bring the milk. Perhaps the individual work period should be shortened to 10:00 a.m. and a group activity programmed from 10:00 - 10:30. During the individual work period, it was generally the staff, not the students, who disrupted the classroom. This occurred when teachers would emit public rather than private responses. Teachers generally did not model the quiet behaviors they want to build in their students. They were generally louder than the students.

TABLE I

Data Recorded at J.

February 10, 1971 9:30-9:45 (Small group)

* = Student on-task + = Teacher positive response

x = Student off-task - = Teacher aversive response

	S	T		S	T		S	T		S	T
1	*		16	*		31	*		46	*	
2	*		17	x		32	*		47	*	+
3	*		18	*		33	*		48	*	+
4	*	+	19	*	+	34	*	+	49	*	
5	*		20	x		35	*		50	*	
6	*		21	*		36	*		51	*	+
7	*		22	*	+	37	*		52	*	
8	*	+	23	x		38	*		53	*	
9	*		24	*		39	*		54	*	+
10	*		25	*		40	*	+	55	x	
11	*		26	*	+	41	*		56	x	
12	*		27	x		42	*	+	57	*	+
13	*		28	*	+	43	*		58	*	
14	*		29	*		44	*		59	*	
15	*		30	*		45	*		60	*	

Summary

Sixty 15 second intervals

54 intervals on-task

At 10:30, one of the students offered me a carton of milk, which I graciously accepted. The teacher reinforced this desirable social response of the student.

The staff has introduced two forms of punishment into the DILE classroom. When a student does not earn a check, the teachers write a zero on his SCL. This does not seem to be a good procedure. The checklist should either have checks when the behaviors are emitted, or there should be no checks. Having teachers place zeroes on the SCL rather than leave it blank, requires the teacher to attend to the undesirable behavior. Giving a zero to a student is very likely not a punisher. The teachers have also arranged a system by which they remove checkmarks contingent on student undesirable behaviors. Although this does not occur frequently, it is most likely not necessary at all. When a student does lose checkmarks, he may earn them back by completing tasks during free time.

Observations by the teacher suggest that prior to the auction of the milk privileges, students stop working and begin to straighten up their desks. They do this so they may make the first bid on the milk privilege. Reinforcement contingencies are such that students are more likely to earn the privilege of getting the milk if their desks are clean prior to the bidding. Contingencies should be re-arranged so that only students working up to the last minute are allowed to bid on the milk privilege.

The small group activity after recess was a good activity. Both teachers were loud and disrupted the other small group. The students in each group did not have their SCL's with them. The teacher, leading the group, was holding the SCL for each student. This should be changed so that each student has his own SCL.

Throughout the day, the aide was busy either interacting with students, or preparing materials. There appeared to be little difference in the amount of work done by the aide and the teacher. The DILE system is designed to maximize the use of aides.

There did not appear to be any contingencies associated with the use of the Borg-Warner System 80 machine. Students who entered the carrel with the machine, generally did not appear to be on-task. The carrel is situated in such a way that the teacher cannot see into it. It is a good place for a student to be off-task. Better use could undoubtedly be made of the Borg-Warner machine. Also, it seems important that the date be place on each SCL so that data on rate of checks earned could be collected. A procedure should also be set up for collecting data on the rate of task completion. Presently there is no summary data sheet reflecting the rate of task completion although completed tasks are tallied in each student's individual work folder. Since the curriculum materials are built in ways that clearly define tasks, it would not be difficult to develop a data sheet summarizing task completion. Each student should be made responsible for entering the data on his task completion data sheet. An 80% correct criterion is used for defining successful task completion, and tasks are sequenced according to the publishers of the materials.

During an interview with the teacher, a number of topics were discussed. The teacher described the students as never having listened to instructions while in classrooms prior to the DILE classroom. During the day's observation, there was not a single observed instance of a student not listening to instructions.

No rules were displayed in the classroom. Rules should be publicly displayed. The teacher feels that all students know the class rules. These unwritten rules are:

1) We do not fight (loss of 25 checks).
2) We do not throw objects (loss of 5 checks).
3) We do not leave work area without permission (loss of 5 checks).
4) We do not talk (loss of 5 checks).
5) We do not eat in class (loss of 5 checks).
6) We do not make noise (loss of 5 checks).

A field trip, scheduled every other Friday, is sold for 200 checkmarks. Parents are involved only to the extent that a weekly note is sent home each Friday that must be signed and returned on Monday. The staff also communicates with parents by phone approximately once a week. Interactions with the project administration are good and communication and support is forthcoming. The teacher suggested that if the requisitioned materials had arrived on time, half the students presently in the class would have already been returned to regular classrooms.

The DILE students now have physical education, music, and library by themselves, when the special teachers can arrange to visit with the DILE class. They do have recess with other students in the school. The DILE students and teachers have good relations with the rest of the faculty. When asked about suggested changes in the program, the DILE staff stated that they would like a field trip once each week, rather than every other week, classrooms with more space, and not more than 10 students in a class.

C. General Conclusions: The project in this classroom is running exceptionally well. The staff is very effective, the students are on-task a great deal of the time, and appear to be learning. Major problems concern staff pre-empting student behavior, teachers not using their own social behavior as a reinforcer, teachers putting zeroes on SCL's, and teachers interacting publicly and being too loud. The initial individual work periods are too long, the Instructional Objective Sheet is not being used, there is no summary data sheet on rate of task completion, students receive more checks when they take a long time to do their work, good use is not made of the Borg-Warner System 80 machine, and punishment has been introduced. In spite of these possible errors, the class appears to be making more than adequate progress.

D. Follow-up visit to J. Elementary School: On May 25, a follow-up visit was made to J. Elementary School. The purposes of this visit were to collect previously requested objective data concerning the CTBS pre and post test scores on DILE and control students as well as to collect the previously requested attendance data. No data were ready and much of the visit was spent in explaining to the principal what data were needed to complete an objective evaluation, and in developing the data sheets appropriate to the collection of the necessary data. The data sheets and written explanations were left with the principal who promised that the data would be collected and forwarded by mail to the present evaluator.

In a final interview with the principal the following summation points concerning DILE during the past academic year were made.

The DILE project as designed on paper looked good and promised sorely needed services. The implementation of the designed program did not meet expectations. In the words of the principal, the project lacked supervision, overall direction was non-existent, and a much needed project coordinator was never found. Academic and social progress of the students was doubtful although the students were contained.

The teacher and aide were described as having good rapport with the students. They possessed all the necessary raw materials to provide a successful year for DILE but due to the lack of supervision the development of the potential was aborted.

The principal faulted the design because of its lack of a procedure to re-cycle students back to the regular classroom and for its lack of a grading system. The principal was quite adamant about not wanting a DILE classroom in his school next year. He suggested that on-going training by an expert is needed and should take place during the summer preceeding the school year. He again stressed that a project coordinator is essential.

In a final interview with the DILE teacher and aide at J. the following points were discussed. The teacher exclaimed that she "loved my children" and that the year had been one of personal satisfaction for her. She felt that the students enjoyed the curriculum materials, but expressed reservation about the Borg-Warner Systems 80 machine. Even by the end of May, the answer sheets necessary for its use had not arrived. She felt that the overall program was successful but added that supervision was lacking even though the project administration was "always available". She also felt that the design did not allow for enough teaching in small groups. She agreed with the principal that in-service training was necessary and that the summer would provide a good opportunity to begin such training. The teacher aide felt that one year was not long enough for a project to develop. His major complaint was that there were no ways currently in use by DILE staff to measure improvements in social behavior.

Observation in the classroom supported the teacher's contention that the DILE students were contained and relatively well-behaved. Unfortunately, data on student social or academic progress were not readily available. A review of the data available suggested that most students had completed less than 10 booklets of the IPI math continuum. This is certainly little academic progress in math. Objective data in reading and science were not readily available.

Some data with regard to student attendance were retrievable. These data suggest that students attended the DILE classroom at rates higher than they attended previous classrooms. Table 2 shows days absent for students prior to their enrollment in DILE and during enrollment in DILE.

TABLE 2

Days Absent For Students At J. Prior To And During DILE.

	PRE-DILE	DILE
1 - W.B.	12	7
2 - V.B.	13	10
3 - J.B.	3	5
4 - R.D.	21	8
5 - A.G.	8	3
6 - D.H.	4	0
7 - R.O.	2	2
8 - R.R.	40	30
9 - W.R.	12	25
TOTAL DAYS ABSENT	115	90
Average =	13	10

These data indicate that six of nine students showed improved attendance during DILE, two showed attendance decrements, and one student showed no change. Improved attendance might be correlated with improved attitudes toward school although the data to support this assumption are lacking. To the extent that the attitudes toward school of DILE students have been improved, DILE has seemingly been successful at least in this regard.

E. CTBS test scores from DILE and control students:

Table 2A shows pre, post, and difference (D) scores, on the CTBS administered in October and May to DILE students and 15 control students. The selected control students were matched with DILE students on the basis of age, sex, and pre-test grade levels. Interpretors of these data should consider that there are no really adequate control students for DILE students since the DILE students are those ejected from the control group.

The CTBS scores indicate that overall, the DILE class did not retrogress, although academic progress was not nearly as great as that in the control class. The results in DILE were more variable than in the control class. For example, although the DILE class showed a slight overall improvement of .13 grade level in reading, only 5 of the 10 students actually showed improved reading skills on the post-test. The same is true for arithmetic in which the DILE class showed an overall improvement of .53 grade level, which reflects improvements in the skills of only 4 of 7 students. (Thus the effects of the DILE program were not uniform whereas, the regular school (control) program had a more homogeneous effect on its students.)

The results suggest that DILE students improved, although minimally. It is the contention of this evaluator that adequate training of DILE staff in Behavior Modification, and better coordination of DILE, improved communication between DILE and school J. administrations, would increase the amount of progress made by DILE students.

In summary, the subjective data from J. indicated that the class seemed to be contained, rapport between teachers and students was fairly good, and the students made adequate academic progress. Objective attendance data suggested improved school attendance, and objective academic achievement data suggested inadequate improvements in reading and slight improvement in arithmetic.

The scores reported were obtained from the counselor at J. who selected the control sample.

III - Final Report on DILE in R. Elementary School

A. Interview with principal:

1) History of the project: Communications between Project DILE and R. Elementary began in the spring of 1970 after the principal of R. heard DILE described as beneficial. The DILE project director met with the staff and principal of R. to discuss various aspects of DILE. The R. staff viewed the projected DILE classroom as a "lifesaver" in that it would allow teachers in the school to remove disruptive students from their classrooms. Since those meetings in the Spring and Summer of 1970 communications between DILE and R. has remained open. Parents were informed about the DILE project by the project director and the principal.

TABLE 2A

CTBS Scores for DILE and Control Students at J. Elementary School

DILE

	READING			ARITHMETIC		
STUDENT	PRE	POST	D	PRE	POST	D
1	2.9	1.6	-1.3	1.7	2.6	+ .9
2	2.1	1.0	-1.1	2.6	3.1	+ .5
3	1.0	2.4	+1.4	---	---	----
4	3.4	4.2	+ .8	5.3	5.2	- .1
5	3.4	2.2	-1.2	1.0	3.6	+2.6
6	4.8	4.2	- .6	4.0	3.8	- .2
7	3.1	4.0	+ .9	3.8	4.1	+ .3
8	1.0	3.1	+2.1	---	---	----
9	4.1	4.9	+ .8	---	---	----
10	2.1	1.6	- .5	2.5	2.2	- .3
Average	2.80	2.92	+.13	2.99	3.51	+.53

CONTROL

	READING			ARITHMETIC		
STUDENT	PRE	POST	D	PRE	POST	D
1	2.0	2.5	+ .5	2.2	3.6	+1.4
2	3.5	4.3	+ .8	2.9	5.6	+2.7
3	3.3	3.5	+ .2	2.3	3.5	+1.2
4	2.5	3.9	+1.4	2.6	4.0	+1.4
5	1.8	1.6	- .2	1.7	2.3	+ .6
6	2.6	5.3	+2.7	2.4	4.9	+2.5
7	3.1	1.7	-1.4	3.3	2.7	- .6
8	1.0	4.1	+3.1	1.4	3.9	+2.5
9	2.8	2.8	0.0	2.8	3.3	+ .5
10	3.8	3.7	- .1	4.1	5.0	+ .9
11	3.5	3.3	- .2	3.3	3.7	+ .4
12	3.1	4.1	+1.0	---	---	----
13	5.1	5.9	+ .8	4.1	5.2	+1.1
14	4.7	4.8	+ .1	4.5	5.9	+1.4
15	5.2	6.9	+1.7	5.3	5.7	+ .4
	3.2	3.9	+.69	3.1	4.2	+1.2

The only requirement of parents was that they be available to take their child home from school in the event that this became necessary. Unfortunately there is no on-going formal training program for parents of the DILE students. After the first students were selected, there was difficulty in conducting the class as designed. New students were selected and now comprise the DILE students. The major drawback to DILE is that the curriculum materials requisitioned for the program began to arrive only in January. The DILE staff as well as the principal viewed this as a serious setback.

2) Students: The school psychologist, the principal, teachers, and the counselor worked together to select 13 students for acceptance into the DILE program. The initial students selected for DILE were labelled primarily as social adjustment problems. When it became clear that the class was not going as expected, these 13 original students were returned to the regular classrooms. They were described as currently functioning fairly well in the new classrooms. New students and a new teacher aide were selected for the present classroom after the Christmas vacation (January, 1971). This change has led to smoother functioning of the DILE classroom. The students in the present class were described as not having "emotional" problems, but suffering severe academic deficits, all at least 3 years behind in reading. The principal suggested that enrolling several girls in the class seemed to have a quieting affect on the boys.

3) DILE staff: Starting in September, there were 4-6 weeks of workshops and in-service training for DILE staff. The first DILE class therefore, did not begin until October. The principal stated that other staff members were beginning to implement some aspects of DILE planning and methods. For instance, some of the other primary teachers were employing candy as rewards for students (which is not a DILE technique).

4) Results: The principal described the classroom as fulfilling his objectives and making satisfactory progress. He would like the project to be continued in his school. He reiterated that the program would be more effective if the requisitioned materials had arrived earlier in the year. The lack of appropriate curriculum materials for the classroom was viewed as a serious setback. The principal suggested that improvements in requisitioning procedures are necessary and that more audio-visual equipment should be used in DILE classrooms. He feels that individualized instruction will be increasingly used and that DILE is heading in the right direction by emphasizing individualized instruction. He particularly praised the SRA individualized reading packages.

5) Goals to yet accomplish: It was decided to select students with academic problems from other classes as control students for comparison to DILE students. The project director and the school counselor will be responsible for arranging this.

B. Observation in the classroom:

1) Physical characteristics: At 10:00, observation in the DILE classroom began. The classroom was large and one teacher, one aide, and 11 students (4 girls, 7 males) were present. The requisitioned materials, IPI math, Distar reading, and SCIS Science program had arrived 2 weeks prior to the class visit. Three carrels, a kiln (used by the art teacher), and desks were in the room. Much written material was on the board. This material consisted of instructions for language and phonics activities, and a poster naming classroom helpers. The helpers were selected by the teachers and these privileges were not bought with checkmarks.

Written goals for the students were posted on an easel. These goals were as follows:

1) Respect ourselves.

2) Respect the teachers.

3) Take pride in our appearance.

4) Show manners.

5) Be trustworthy and honest.

6) Read better.

7) Write better.

8) Speak better.

9) Be better in arithmetic.

There was a pet gerbil in the classroom, and several books were available in various places around the room.

Tables for the students are preferable to desks because the tables have larger flat space for materials, and they are not easily moved around.

2) Class routine:

a) Individual work - 9:15-10:45: The students were involved in individual activity (Setting 1). Staff members were tip-toeing around the classroom and students were raising their hands and remaining quiet. One public response occurred when the teacher told a student not to sharpen his pencil. The teacher and aide circulated through the classroom working individually with the students. Interactions were generally consistent with a behavior modification approach, but the staff must learn more about using attention as a systematic consequence for desirable student behaviors.

For instance, a staff member gave checks to one girl while she was sucking her thumb. Delivering the checks at that particular time, not only stengthened being in seat, but also thumb sucking. When another child was out of seat, a teacher told him to "sit down, do you want your check?, then sit at your seat." This teacher attention was contingent on the student's out of seat behavior.

Unfortunately, checks are not given out frequently or consistently enough. During the individual work activity, checks are usually given out at the end of a 15 minute interval. Therefore, much of the desirable behavior occurs just prior to the 15th minute. The checkmarks should be evenly delivered throughout the 15 minute periods. Occasionally, staff members pre-empted student behavior by providing answers to students "experiencing difficulty." Teachers must learn to break down difficult tasks and assist the students in arriving at the correct answer, rather than providing the answers for the students. When the classroom became noisy toward the end of the individual work period, the teacher stood up and stated loudly, "Boys and girls, it's a little noisy in here, let's keep it down." This is an example of public reinforcement for undesirable behavior and also modeling the undesired behavior. After a student finished four tasks he could go over to a reading table and choose books to read. The individual work period was good, there was much on task behavior as reflected in data that were collected. (See Table 3). The staff moved around and interacted frequently and privately with most of the students. The individual work period did not end until 10:45. It was too long and should have ended at 10:15. Good use however, was made of the aide during the individual work period. During the individual work session, the R. class did not seem as well controlled as the J. class. Work for the students was not in prescriptive folders, checks were given out in a random, haphazard way, not necessarily for each individual behavior. Occasionally, one large checkmark would extend over the eight blank spaces in place of eight individual checks for the eight specified behaviors.

b) Recess: For those students who completed 4 academic tasks during the morning work period there is a 15 minute recess, beginning at 10:45. While preparing for recess, teachers responded to undesirable behaviors. Remarks such as "stand in a straight line," "put your coats on straight," "stand up straight," were heard prior to the class going outside for recess. Although recess is supposedly contingent on the completion of 4 tasks, a student who is working slowly and seems to be having difficulty, may also go to recess. Unfortunately, the contingencies arranged here are that the longer a student requires to do his work, the less work he has to complete to earn recess.

c) Small group work - 11:00-12:00: At 11:00 recess ended. The students were told that if they hadn't finished their morning work, they may do so. There was much noise, to which the teacher responded by loudly stating, "I want to see how many of you are ready for work, so you can get your ready for work check." Remarks, such as, "turn around in your seats everybody" were heard frequently. A small group activity was to start at 11:00 but this activity was in actuality a full class group activity. Toward the beginning of this activity, students were waiting for the teacher to begin. While the students were emitting undesirable behaviors, the teacher responded by saying, "Look at the way you're sitting," "turn around in your chair," "put your feet under your desk." At 11:08, it was time to sharpen pencils. Students were told to sit up so that checks could be given out for sitting. Data were also collected during this large group experience (see Table 3). After the teacher gave the checkmarks for "getting ready to work", he returned to the front of the classroom. When the class remained noisy he responded by saying, "Come on, I gave you your checks, now you should be ready to work."

During the group experience, the teacher tended to call on students who did not raise their hands, rather than on students who did. The teacher ignored students who were emitting the appropriate behaviors (hand raising) and punishing those who were not raising their hands. They were punished by being called on when they generally did not know the answers. During this group experience, the aide worked with one student on alphabet skills. During the group experience, there was much teacher behavior and little student behavior. The group lesson concerned initial and final consonants. Frequently the students did not seem to know what to do in the group experience, and finally at 11:30 after asking some students individually, the teacher asked, "Does everyone understand what to do?" At 11:37, the teacher said, "Let's all stop for a second so we all know what to do." He then worked some problems at the board and for the first time during the day, students began to look at the clock. Calling out, talking, and much off-task behavior were occurring. Finally, at 11:40, a quiz was given by the teacher on reading, (not on initial and final consonants - the central concern of the group work).

It seems that individualized academic materials and experiences, are far superior to group academic activities. Perhaps other kinds of activities which are not academic should occur in group settings. The high percentage of off-task behavior during the large group experience, might occur because there are no specified tasks for the student and/or the teacher. During the group experience the students were frequently waiting for the teacher to initiate activity. At 11:45 the teacher said, "Now, we'll start a different lesson."

d) Lunch - 12:00-1:00: At 12:00, the students went home for lunch. During lunch, an interview with the teacher was held. The teacher is not totally pleased with the classroom. The major complaint was that the materials did not arrive in time and materials for non-readers are still needed. He also felt that the checkmarks were not reinforcing to the students. The checkmarks are used to buy free time at the end of the day, (1 hour of free time for 40 checkmarks), and to buy field trips about every 2 weeks. Unfortunately, the teacher has little control over when the field trips occur. Therefore, the back-up reinforcers for the checks are inconsistent thereby decreasing the reinforcing properties of the checks. During free time, during the last hour, students use the Write-Bright game, they play with puzzles and building blocks, or they color. The teacher felt that these back-up reinforcers are weak.

TABLE 3

Data Recorded at R.

February 18, 1971 10:02-10:17 (Individual work)

* = Student on-task + = Teacher positive response

x = Student off-task - = Teacher aversive response

	S	T		S	T		S	T		S	T
1	*		16	*	+	31	x		46	*	
2	x		17	*		32	*		47	*	+
3	*		18	*		33	*	+	48	*	
4	*		19	*		34	*	+	49	*	
5	*		20	*	+	35	*	+	50	*	
6	*	+	21	*		36	*	+	51	*	+
7	*		22	*	+	37	*		52	*	
8	*		23	*		38	x	-	53	*	
9	*	+	24	*		39	*		54	x	
10	*		25	x		40	*		55	*	
11	*		26	*		41	*		56	*	
12	*		27	*		42	*		57	*	
13	*		28	*	+	43	*		58	*	
14	x		29	*		44	x		59	*	
15	*		30	*		45	*		60	*	

Summary

Sixty 15 second intervals
53 intervals on-task
88% on-task
13 Positive control
1 Aversive control

TABLE 3 (Continued)

Data Recorded at R.

February 18, 1971 11:35 - 11:50 (Group work)

* = Student on-task + = Teacher positive response

x = Student off-task - = Teacher aversive response

	S	T		S	T		S	T		S	T
1	*		16	x		31	x		46	x	
2	*		17	*		32	x	-	47	x	
3	*		18	x	-	33	x		48	*	
4	x	-	19	x		34	x	-	49	*	
5	*	-	20	x		35	x		50	*	
6	x		21	*		36	*	-	51	x	
7	x	-	22	x		37	*		52	x	
8	x		23	x	-	38	x	-	53	*	
9	x	-	24	*		39	x		54	x	-
10	x		25	x		40	x		55	*	
11	x		26	x	-	41	x	-	56	*	
12	*		27	x		42	x		57	*	
13	x	-	28	x		43	*		58	*	
14	x		29	x		44	x	-	59	*	
15	x	-	30	x	-	45	x		60	*	

Summary

Sixty 15 second intervals
21 intervals on-task
35% on-task
0 Positive control
17 Aversive control

TABLE 4

Days Absent For Students at School R. Prior to and During DILE.

	PRE-DILE	DILE
1. C.B.	14	20
2. D.H.	--	20
3. W.J.	2	40
4. C.M.	5	15
5. J.M.	26	33
6. J.M.	4	8
7. W.M.	6	0
8. S.P.	27	18
9. D.Q.	34	43
10. R.W.	5	10
TOTAL DAYS ABSENT	123	207
Average =	12	19

It appears that for DILE at School R., one cannot support a claim regarding improved attitudes toward school of DILE students. In view of the fact that the teacher abandoned the DILE design and re-instituted more traditional aversive control procedures to replace the systematic positive control techniques designed into DILE, deterioration in attendance is expected and certainly understandable.

The Systems 80 teaching machine has been broken for a month. The Distar Reading program is not being used because the teacher has not had the time to prepare himself for its use. There does not seem to be systematic use of the curriculum materials in assigning tasks to students. This is primarily because there were no materials built for such use until 2 weeks ago. The definition of a reading task during the individual work period was never made clear. Occasionally, during the individual work period, the teacher put a task on the board for all of the students to do. The teachers stated that he likes to group the students and to give them homework "because they need homework", although he doesn't demand a lot of homework. Students who are not earning checkmarks receive zeros. The SCIS science program, reading stories, and the word bank are used whenever small group activity does occur. Students are not detained after school.

The major complaint of the teacher was that materials had not arrived in time. There are good relations with the other staff members and they have been helping him. The teacher at School R. is not committed to a behavioral approach. He says that he thinks it is theoretically sound, but "You can't change a student by rewarding him. You change him by letting him know you are concerned about him." Unfortunately such concern is often contingent on the student's undersirable behavior. He then made an excellent point by saying, "If you are going to use behavior modification techniques, then you must have all the materials and you must have strong reinforcers."

I gave the teacher the data sheets for recording this year's and last year's attendance data.

e) Large Group Work - 1:00-2:00: At 1:00, we returned to the classroom for the large group experience which was similar to the activity which occured before lunch. The students were waiting for the teacher to initiate activity. The teacher asked, "How many of you are ready to work?" "Raise your hand, and I'll give you your check." He then reminded the students that they will need 50 checks to buy free time at 2:00. Finally, at 1:20 (twenty minutes after the teacher started the group activity) the class was engaged in an activity. For the previous twenty minutes however, they sat waiting.

C. General Conclusions:

Preliminary conclusions suggest that the staff in this class is not systematically applying the DILE design. The program would be more effective if the teachers could be trained in the use of social reinforcement and if they would more closely follow the class design.

D. Follow-up visit to R. Elementary School: On May 26, a follow-up visit was made to R. Elementary School. The data which had previously been requested were not available and much time was spent explaining what data were needed to complete an objective evaluation of Project DILE and developing the necessary data sheets.

In a final interview with the principal the following summation points concerning DILE during the past academic year were made. The comments were generally the same as those of the principal at School J. Although, initially enthusiastic, the principal was disappointed in the failure in the development of the potential of DILE. He attributed the failure of DILE to the inexperience of the teaching staff and to the lack of ongoing input from the project director. The principal stated that problems of controlling students did exist at School R. There had been no input from the project administration since the autumn and to the principal's knowledge, the new teacher's aide hired in December, had never met personally with the project director. Frequent turnover of staff was also cited as a major problem. Other problems cited were that the program began late, the beginning was further delayed by long and relatively frequent in-service workshops which disrupted classtime, and special curriculum materials on which the program was based did not arrive until after January. Because of the lack of supervision from DILE project director, the principal felt that it was necessary to revert to the use of more traditional techniques in the classroom. The principal was quite outspoken in his refusal to continue the DILE program in his school for the coming year although he felt some program was needed in his school. His conclusion was that DILE was beautiful on paper but was not effected as designed.

In a final interview with the teacher and aide at School R., the following points were discussed. Both staff members felt that the program had not accomplished what was expected. The earning of checkmarks and the earning of field trips by students, integral parts of the DILE design, had been given up in the School R. classroom for some time. This occurred because the staff felt that interpersonal relationships were more important in the development of children than contingency management. All of the necessary IPI materials and Sullivan materials never arrived at R., and the Distar Reading program was not used. The teacher and aide developed their own materials and described the classroom as "hit and miss" all year. Both staff members felt the DILE design was good, but blamed the failure of the program on the lack of supervision and know-how in the implementation of the design. The teacher stated he would not teach in DILE in the future if provided the opportunity.

Observation in the classroom verified the teacher's report. Group lessons were on-going with examples and exercises on the board rather than in individual learning packages. Further observations suggested that the teaching staff was almost exclusively using aversive techniques of threat or punishment to control the class. This classroom was more similar to a traditional classroom than to a supposedly innovative, experimental classroom. Data on student social and academic progress were not readily available. This evaluator cannot comment at all on academic progress. Some data with regard to student attendance were retrievable. These data (pro-rated on the basis of records for only 4 months of attendance during DILE) suggest that attendance for all but two students deteriorated during participation in DILE at School R.

E. CTBS test scores from DILE and control students: Serious efforts by the present evaluator and by personnel of the Division of Planning, Research and Evaluation were made to collect the CTBS pre and post test scores, but no data were made available. It is indeed unfortunate that the required cooperation from the DILE administration and from the staff at School R. to successfully evaluate DILE at R. was not obtained.

IV. - Final Report on DILE in X. Elementary School:

A. Interview with principal:

1) History of the project: Discussions between the DILE and X. administrations began in September, 1970. The project director of DILE met with the staff of X. school and explained the program to the faculty. Throughout the program, cummunication with the DILE project director has been good. An initial meeting with the parents was held to explain parent responsibilities to the project. Active parent involvement at School X. has been limited. The parents are called or visited regularly by the DILE staff, and close contact is maintained. The materials especially requisitioned for the DILE classroom did not begin to arrive until January, 1971.

2) Students: The faculty of X. school was responsible for recommending students for DILE. These recommendations were channeled through the principal and counselor who acted on the recommendations. In establishing the class, attempts were made to arrange a balance between students with academic problems and students with social adjustment problems. Students with social adjustment problems were defined as students who "act out" or are "withdrawn". There are twelve male and three female students enrolled in the DILE classroom at X. Two of these students are from schools other than X.

3) DILE staff: The DILE staff at X. had an orientation which included observation of the DILE students while they were still in regular classrooms. The DILE classroom opened on October 1. Members of the regular faculty at X. Elementary School are happy that DILE is in the school; "It provides opportunity to remove disruptive students." Unfortunately, there is little interaction between DILE staff members and regular staff members. Although the DILE teacher has invited other staff members to visit his classroom, there has been no sharing of materials, perhaps because the materials arrived very late.

4) Results: Several concerns were expressed by the principal. He suggested that the class was not achieving its goals because there was not enough structure in the class. "Students seem now to have less self-control than before they were in the class. They now need constant supervision on the playground, after school, and before school." Furthermore, there are problems (which were not specified) associated with the "philosophy of the teacher." Problems of fading back into the regular school classroom were discussed. He felt that students will presently not go back to the regular classrooms because the DILE classroom is too different from the regular classroom.

The principal's support for this conclusion derives from the fact that the DILE class goes bowling every week, and he doesn't understand why they do this. (This suggests that the principal does not have a full understanding of the contingency management system set up in the DILE classroom and that further explanation of the program may be necessary). He felt that an entire school could not be designed on the DILE model. In spite of these concerns however, was the strong suggestion that the students of this class are now receiving instruction whereas prior to DILE they were not. Skeptical of the program earlier in the year, the principal agreed to accept DILE in his school in order to introduce the IPI math continuum into his school. In terms of changes to be made, it was suggested that the DILE staff should have more workshops earlier (during the summer) so that by September, the classroom with all it's materials and it's trained staff would be ready to begin. With regard to identifying control students within School X. for comparison purposes, the project director is to get in touch with the school counselor to arrange for collecting the pre and post-test data on the CTBS.

B. Observation in the classroom:

1) Physical characteristics: The classroom was a large room that had been used as the multi-purpose room for the school. There were a kitchen area and a piano in the room. The schedule of the day was displayed on a bulletin board and a clock near it was easily visible. Written rules and a checkmark chart showing the progress that each student is making towards the purchase of the bi-monthly field trip were posted in the room. There were three carrels in the room in which students were working. Pictures, charts, and work were displayed around the room as in other classrooms. The System 80 teaching machine had been broken for a number of weeks. The reading materials used in the classroom are Distar, Sullivan Reading, SRA reading labs, Basal readers, and worksheets developed by DILE staff. The math curriculum is based entirely on the IPI materials, and the Science curriculum will be based on the newly arrived SCIS science materials. The class rules as stated on the bulletin board are as follows:

1) If you fight, your mother will be called to take you home.
2) Do not throw objects.
3) Do not leave your work area without permission.
4) Do not eat in class.
5) Do not bang or tap on your desk top.
6) Do not call out.
7) Do not lean back in your chair.
8) Do not talk about your classmates' family.

2) Class routine:

a) Individual work - 9:15-10:30: I entered the room at 9:50 and observed twelve students working quietly. Much IPI math work was being done. The language arts tasks were on worksheets prepared by the DILE teaching staff. Unfortunately, checkmarks were not given out while the students were working, but either at the end of the work interval or when a student raised his hand (and was not working) indicating he had completed the task.. Checkmarks are given out for task completion but are not related to the correctness of the task. Shortly after checkmarks are given out, the teacher finds the time to review the work to determine correctness (although the checkmarks have already been delivered). Delivering the reinforcers without consideration for correctness is a serious problem. In general, the students were working and teachers were quietly moving around the room to interact with the students. It was a quiet, industrious room, which appeared to be an excellent working environment. From 9:59 to 10:14, during the individual work period, data were recorded on student on-task behavior and teacher responding (See Table 5).

The data indicated that students were on-task for 87% of the intervals and staff members were observed to use positive control 12 times. It should be noted that while recording these data, several students were pulled off-task by the observer for two of the off-task intervals.

There are punishment procedures in this DILE classroom. Punishment takes three forms:

1) A student's name is written on the board and a tally mark is placed next to his name when an undesirable response occurs. These tally marks are then translated into X marks on the student's SCL (in place of checks).

2) Calling a parent and asking the parent to take the child home.

3) A phone call to the parent after school asking the parent to handle the problem.

During the individual work period, from 9:15 to 10:30, two student's names were written on the board and there was a total of 5 tally marks.

b) Recess - 10:30-11:00: At 10:30, the teacher asked the students to put their work back into their folders and to prepare for indoor recess. To earn (indoor) recess, each student must complete at least two IPI math tasks and 1 reading task. During indoor recess, students drank their milk and played quite well together. During the recess, the teacher wandered around the classroom and checked the correctness of tasks completed during the previous individual work period.

In the X. classroom, students can earn a maximum of 75 checks per day, 10 of which go toward the bi-monthly field trip. One hundred checks (which can be earn during 10 school days) are required to earn a field trip. Fifty checks are required to buy free time at the end of each day, these 50 checks cannot be used on subsequent days. Thus, a student who earns 60 of the potential 75 checks during the day, will be able to buy free time at the end of each day, and a field trip every other Friday. Earning 75 checks requires that a student complete 6 tasks during the individual work period (rather than the minimum 3).

TABLE 5

Data Recorded at X.

March 4, 1971 9:59-10:14 (Individual work)

* = Student on-task

x = Student off-task

+ = Teacher positive response

- = Teacher aversive response

	S	T		S	T		S	T		S	T
1	*		16	*	+	31	*		46	*	+
2	*		17	x		32	*		47	*	
3	*		18	x		33	*		48	*	
4	*	+	19	*	+	34	*		49	*	
5	*		20	*		35	x		50	x	
6	*	+	21	*		36	*		51	*	+
7	*	+	22	*		37	*		52	*	
8	*		23	*		38	*	+	53	*	+
9	*		24	x		39	*		54	*	
10	*		25	*		40	*		55	*	
11	*		26	x		41	*		56	*	
12	*		27	*	+	42	x		57	*	
13	*		28	*	+	43	*		58	x	
14	*		29	*		44	*		59	*	
15	*		30	*		45	*		60	*	+

Summary

Sixty 15 second intervals
52 intervals on-task
87% on-task
12 positive control

TABLE 5 (Continued)

Data recorded at X.

March 4, 1971 11:07-11:22 Small groups (Distar)

* = Student on-task

+ = Teacher positive response

x = Student off-task

- = Teacher aversive response

	S	T		S	T		S	T		S	T
1	x		16	x		31	*	-	46	x	
2	*		17	x	+	32	x		47	x	+
3	x	-	18	*	-	33	x		48	*	
4	*	-	19	*	-	34	x		49	*	-
5	*		20	x		35	*		50	x	-
6	x		21	*		36	*		51	x	-
7	x	+	22	x		37	x		52	x	
8	x		23	x		38	x	+	53	*	
9	x		24	*		39	x	-	54	x	
10	x		25	x	-	40	x	-	55	x	+
11	*	-	26	*	+	41	*		56	*	
12	x	+	27	*	+	42	*		57	x	-
13	*	+	28	x		43	*	+	58	*	
14	*	+	29	x		44	x	-	59	*	
15	*	+	30	*		45	*	-	60	x	-

Summary

Sixty 15 second intervals
27 intervals on-task
45% on-task
16 Aversive control
12 Positive control

c) Small group work - 11:00-12:00: After recess at 11:00, the class was divided into two groups for reading. A low reading group of nine students worked with the Distar materials. The high reading group of 3 students used a higher level book for its reading material. The aide working with the smaller group asked questions related to building reading comprehension. Data were collected during this small group activity (see Table 5). These data indicated that students were on-task 45% of the time, and that staff were observed to use aversive control 16 times and positive control 12 times. Data also indicated that during the one hour group activity, 8 of the 9 students in the larger group had their names written on the front board and a total of 21 checks were removed from them for undesirable behaviors (as compared to 2 names and 5 tally marks during the individual work period). When putting a check on the board, the teacher would not specify the undesirable response but would respond in general terms such as, "O.K. Willy, let's get control of yourself". After the first half-hour of the small group activity, the teacher went to the students' desks and entered checkmarks or "X's" related to what had occurred in the previous half-hour. The same occurred at 11:55 after the second half-hour of the small group activity.

d) Lunch - 12:00-1:00: At 12:00, the students were told to line up quietly to prepare for lunch, which they did. At 12:00 they went to lunch and returned at 12:30 for indoor recess.

During lunchtime, an interview with the teacher ensued. The objective of the program was defined as getting the students back into the regular classrooms. During the discussion, a suggestion was made that efforts be made so that the regular classrooms would approximate the DILE classrooms. The curriculum materials used in DILE are structured to define the tasks and therefore make it easy for teachers to assign tasks to be done. Unfortunately, the behavioral objective sequencing sheets designed for DILE are not being used.

The DILE staff at X. is concerned with the problem of fading back to the regular classrooms. To fade students back successfully, they plan to learn about the curriculum materials being used in potential re-entry classrooms and to use those materials in the individual work folders of the students in the DILE classroom. This would prepare each potential transfer student for a successful return to the regular class. During the interview, it was suggested that the individual carrels in the DILE class be used as reinforcers. They could be rented to students who would pay rent in the form of checks. During free time at the end of the day, some students work on Systems-80 machine (when it is not broken) others like to go outside and play football. Attempts are being made to arrange a football game between the DILE class at J. and the DILE class at X. Students may also bring things from home to use during their free time. During free time however, a student can not sleep on his desk. The principal of the school suggested that there be a variety of activities (specified by the teacher) available to the students in place of totally free time.

The parents in the program are not involved to a great degree. They do receive notes from the DILE staff approximately once every three weeks. For serious problems, parents are called. Field trips every other Friday have generally included bowling or picnics. The staff has had workshops and training in IPI materials, SRA materials, and Sullivan materials, but they did not receive intensive training in Behavior Modification. They described good support from the administration of the project and good relations with the administration. Throughout the day, the aide assumed large responsibilities in the classroom. The aide has responsibilities very similar to those of the teacher.

C. General Conclusions:

The problems in the classroom seem to be the same general problems that existed in all the DILE classrooms. The teachers need training in Behavior Modification, particularly with regard to using their own behavior as a consequence for student behavior. An example of the need for training was seen when a teacher gave checkmarks and interacted with a student while he was leaning back in his chair, although there is a class rule that says "Do not lean back in your chair."

D. Follow-up visit to X. Elementary School:

On May 26, a follow-up visit was made to X. Elementary School. The purposes of this visit were to collect previously requested data. No data were ready and time was therefore spent in preparing data sheets and describing to the principal what data would be necessary for an objective evaluation of DILE.

In a final interview with the principal the following summation points concerning DILE during the past academic year were made. The sentiments of the principal at X. were virtually the same as those expressed by the principals of the other DILE schools. The design looked good on paper, but implementation of the design failed due to lack of supervision, direction, teacher experience, project coordination and materials. The teacher and aide were described as conscientious and hard working but in need of supervision. The students made some progress. On the contrary, the principal felt that the students retrogressed, learning undesirable social behaviors from one another. Under no circumstances would the principal accept DILE in the future.

In a final interview with the DILE teacher and aide at X. the following points were discussed. The teacher felt that the program was somewhat successful, but couldn't provide objective data to support his contention. The staff however felt that each student had made some progress and that the design was good. The program was hurt by the late arrival or by the complete absence of the curriculum materials. The Borg-Warner Systems 80 machine was described as useful only for students who had no reading skills at all. The teacher expressed interest in teaching in DILE in the future.

Data on daily academic and social progress of the students were not available. Data with regard to student attendance were retrievable. Table 6 shows days absent for students prior to their enrollment in DILE and during enrollment in DILE.

TABLE 6

Days absent for students at X. Prior to and During DILE

	PRE-DILE	DILE
1. T. B.	2	0
2. T. B.	2	2
3. D. F.	13	3
4. L. H.	47	40
5. M. J.	6	5
6. A. M.	108	29
7. H. M.	15	2
8. M. R.	14	3
9. R. R.	6	14
10. W. T.	2	4
TOTAL DAYS ABSENT	215	102
Average =	27	9

The attendance data from X. suggest that the attitudes of these DILE students were improved as reflected in improved attendance.

E. CTBS scores from DILE and control students: Unfortunately the CTBS pre and post test scores for control students from X. were incomplete. The scores on DILE students were however obtained from the DILE teacher. Due to the lack of complete control scores, the data are difficult to interpret. Table 7 shows pre, post, and difference (D)scores on the CTBS administered in October and May to DILE students. Complete pre and post test scores were available for only 6 of 15 students. The data for these 6 students show a substantial average increase of 1.35 grade level in reading, and an average increase of .4 grade level in arithmetic. Lack of control scores renders interpretation of these data difficult. However, it is clear that substantial progress in reading and slight progress in arithmetic were made. It is unfortunate that data were available on only 6 students.

TABLE 7

CTBS Scores for DILE students at X. Elementary School

DILE

STUDENT	READING PRE	READING POST	READING D	ARITHMETIC PRE	ARITHMETIC POST	ARITHMETIC D
1	---	----	---	1.7	---	---
2	1.0	4.6	+3.6	1.0	2.2	+1.2
3	2.5	3.6	+1.1	1.0	2.9	+1.9
4	2.4	4.0	+1.6	3.1	3.1	0.0
5	2.3	3.2	+0.9	---	1.3	---
6	---	1.5	---	---	1.3	---
7	2.4	---	---	3.3	---	---
8	2.6	4.3	+1.7	3.0	1.4	-1.6
9	3.4	3.5	+0.1	3.5	4.0	+0.5
10	2.6	5.5	+2.9	---	2.8	---
11	---	3.8	---	---	3.0	---
12	1.0	1.0	0.0	1.0	1.4	+0.4
13	1.0	---	---	1.0	---	---
14	---	6.1	---	---	4.4	---
15	---	9.5	---	---	5.9	---
AVERAGE*	2.15	3.5	+1.35	2.1	2.5	+0.4

*Based on students for whom all scores were available.

Continuation - TABLE 7

CTBS Scores for Control Students at X. Elementary School

	READING			ARITHMETIC		
STUDENT	PRE	POST	D	PRE	POST	D
1	---	4.9	---	---	5.3	---
2	---	6.2	---	---	6.3	---
3	---	5.9	---	---	6.6	---
4	---	4.9	---	---	7.2	---
5	---	6.3	---	---	6.2	---
6	---	7.1	---	---	9.2	---
7	---	7.2	---	---	6.8	---
8	---	4.9	---	---	6.5	---
9	---	4.9	---	---	4.3	---
10	---	5.8	---	---	4.5	---
11	---	6.2	---	---	6.3	---
12	---	3.5	---	---	4.3	---

Note: These Data were received after the writing of this report and was not incorporated in the final analysis.

V. Attachments

1. Student Check List: Each student has his own SCL on his desk. Staff members enter checkmarks onto the SCL throughout the day. The checks are then exchange for free time and field trips.

2. Instructional Objective Sheets: This sheet was designed to assist the DILE staff to appropriately sequence the work tasks for each student in order to facilitate successful attainment of the behavioral objective. Use of this sheet would provide data on rate of task completion. Unfortunately, this form was not used.

3. Principal interview:

4. Teacher interview:

5. Attendance data sheet given to teachers.

STUDENT CHECK LIST

9:00-9:15 - Setting #3 Large Group Instruction-Opening Exercises	CHECKS	11:00-11:30 - Setting #2 Small Group Instruction	CHECKS
READY TO WORK		READY TO WORK	
AT WORK AREA		AT WORK AREA	
PAYS ATTENTION TO TEACHER		PAYS ATTENTION TO TEACHER	
PAYS ATTENTION TO CLASSMATES		PAYS ATTENTION TO CLASSMATES	
RAISES HAND		RAISES HAND	
GETS ALONG WITH CLASSMATES		GETS ALONG WITH CLASSMATES	
WAITS FOR CHECKMARKS		WAITS FOR CHECKMARKS	
CUM. TOTAL		CUM. TOTAL	
9:15 - 10:30 Setting #1 PRESCRIPTIVE FOLDERS		11:30 - 12:00 Setting #2 SMALL GROUP INSTRUCTION	
READY TO WORK		READY TO WORK	
AT WORK AREA		AT WORK AREA	
WORKS QUIETLY		PAYS ATTENTION TO TEACHER	
RAISES HAND		PAYS ATTENTION TO CLASSMATES	
WAITS FOR CHECKMARKS		RAISES HAND	
CUM. TOTAL		GETS ALONG WITH CLASSMATES	
READY TO WORK		WAITS FOR CHECKMARKS	
AT WORK AREA		CUM. TOTAL	
WORKS QUIETLY		1:00 - 1:30 Setting #1	
RAISES HAND		LARGE GROUP INSTRUCTION	
WAITS FOR CHECKMARKS		READY TO WORK	
CUM. TOTAL		AT WORK AREA	
READY TO WORK		PAYS ATTENTION TO TEACHER	
AT WORK AREA		PAYS ATTENTION TO CLASSMATES	
WORKS QUIETLY		PARTICIPATES IN DISCUSSION	
RAISES HAND		RAISES HAND	
WAITS FOR CHECKMARKS		GETS ALONG WITH CLASSMATES	
CUM. TOTAL		WAITS FOR CHECKMARKS	
READY TO WORK		CUM. TOTAL	
AT WORK AREA		1:30-2:00 Setting #4	
WORKS QUIETLY		LARGE GROUP INSTRUCTION	
RAISES HAND		READY FOR WORK	
WAITS FOR CHECKMARKS		AT WORK AREA	
CUM. TOTAL		PAYS ATTENTION TO TEACHER	
READY TO WORK		PAYS ATTENTION TO CLASSMATES	
AT WORK AREA		PARTICIPATES IN DISCUSSION	
WORKS QUIETLY		RAISES HAND	
RAISES HAND		GETS ALONG WITH CLASSMATES	
WAITS FOR CHECKMARKS		WAITS FOR CHECKMARKS	
CUM. TOTAL		CUM. TOTAL	
READY TO WORK		2:10-2:55 Setting #4 FREE TIME	
AT WORK AREA		READY FOR FREE TIME	
WORKS QUIETLY		USES SIGN UP SHEETS	
RAISES HAND		AT WORK AREA	
WAITS FOR CHECKMARKS		GETS ALONG WITH CLASSMATES	
CUM. TOTAL		WAITS FOR CHECKMARKS	
		CUM. TOTAL	

Date________

Student: ____________________

Teacher: ____________________

INSTRUCTIONAL OBJECTIVE SHEET

For independent folder work only (Reading and math tasks). All tasks are designed to require 15-20 minutes.

EVALUATION OF INSTRUCTIONAL OBJECTIVE

Date________

SEQUENCE OF TASKS

Date				
B	F	Settings	Activity	Specify material

CODE

SETTING

TT	Teacher Tutor
PT	Peer Tutor
TO	Tutor Another Child
IS	Independent Study
SG	Small Group
LG	Large Group

ACTIVITY

Active Student Learning

1	Oral Reading (specify)
2	Extemporaneous Speaking
3	Tutoring Another Child
4	Giving a Prepared Report
5	Answering Questions Orally
6	Handout Writing
7	Creative Writing
8	Drawing
9	Creative Art
10	Teaching Machine (specify)
11	Manipulative Object (specify)
12	Programmed Instruction (specify)
13	Creative Movement

Passive Student Learning

14	Listening to Teacher
15	Listening to Students
16	Listening to Tape Recording (specify)

Principal Interview

1) Who are the students in the DILE classroom and how were they selected?

2) Why is the project in school?

3) When did it get started?

4) Was it late?

5) Describe the interaction between the DILE administration and the school administration.

6) What suggestions or changes do you have to improve the DILE project?

7) Is it benefiting this school? Is it fulfilling your objectives? How?

8) Would you accept DILE next year?

9) What have the reactions of other staff members been? Have there been benefits to the other staff?

10) What is the reaction of the school community?

11) Describe staff training and orientation.

12) Would it be possible to gather CTBS scores of a control sample in school?

Teacher Interview

1) Are behavioral objectives specified for students?

2) Are tasks sequenced?

3) Are rules clearly visible to the students?

4) What procedures are used for ongoing data collection?

5) Describe the use of the prescriptive folders.

6) Are the contingencies as designed actually in effect?

7) Is classroom procedure actually according to the system designed?

8) How can students use the checkmarks they earn?

9) Is the emphasis on reading and math (according to Clark Plan)?

10) Are there pre-test scores on the students?

11) Is there a summary data (checkmark) sheet?

12) How is the progress of each individual student charted?

13) How do you handle specific problems, e.g., a child always late to school?

14) Describe training for the DILE staff.

15) Describe the involvement of parents.

16) Describe assistance from project administration.

17) What is the criterion for successful task completion?

18) Describe the function of your aide.

19) Describe your interactions with other staff in the school.

20) Would you please gather attendance data on your students from last year and this year.

Attendance Data Form

Dear Dile Teacher,

Would you please consult with the counselor in your school and complete the enclosed form regarding attendance. Thank you.

NAME OF CHILD ______________________________ SCHOOL ________________

ATTENDANCE: School year - September 1969-1970											
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	T'S
Days Present											
Days Absent											
Total School Days											

ATTENDANCE: School year - September 1970-1971											
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	T'S
Days Present											
Days Absent											
Total School Days											

Please return to:

Sholmo Cohen, Ph.D.
Evaluator, Project DILE
Division of Planning, Research
and Evaluation
415 12th Street, N.W.
Washington, D.C. 20004

VI. Report from C. and P. Elementary Schools:

DILE classrooms at C. and P. Elementary Schools were terminated early in the academic year. During phone call interviews with the principals of these two schools the following points were discussed.

The principal of C. stated that the inexperienced DILE staff was totally inadequate to work with the students. Before the students went back to regular classes, the principal felt they had regressed socially. The principal felt that a trained staff was necessary for such problem children and described herself as totally negative with regard to DILE.

The principal of P. blamed the inexperience of the DILE staff and the lack of needed equipment for the failure of the DILE classroom. The teachers were not skilled enough to prescribe necessary work for the students and could not implement the DILE design because of lack of materials. The DILE class at P. became a traditional classroom under Special Education.

Unsuccessful attempts by the present evaluator were made to contact the project director concerning the difficulties with the existing DILE projects, the closing of the two DILE classes, and the problems associated with hiring a project coordinator.

VII. Summary, Conclusions, and Recommendations:

The administration of Project DILE has incorporated into its present framework, some of the recommendations from past evaluations. Most important, the project director (in accordance with the Clark Plan) has ensured that all DILE students will undergo pre and post tests on the California Test of Basic Skills (CTBS). Furthermore, the project director with the principals and counselors of the host schools, is selecting control students in each school for comparisons between DILE and regular students on the CTBS. Unfortunately, the DILE project director has not made arrangement for adequate training of DILE staff in Behavior Modification and the problems of developing a parent program. These are still viewed as major deficiencies of the DILE project.

The three DILE classrooms were observed and general conclusions are that all three classes as presently constituted are successful to varying degrees. The contingency management system as designed is fulfilling its purpose of controlling the behaviors specified by the system (such as being in seat, raising hands, etc.) but, is not successful in controlling behaviors not specified by the system (such as talking back to teachers, cooperative social interactions, etc.). These other behaviors can be shaped and developed only by a staff well trained in the principals of Behavior Modification. Such a staff would know how to develop desirable behaviors without having to be shown each procedure along the way.

A. The major strenghts of the DILE Project (1970-1971):

1. The program has served to contain previously uncontrollable students and is designed to maximize the use of aides.

B. The major failings of the DILE Project (1970-1971):

1. Requisitioned materials arrived very late (during January and February of 1971), and this caused disruption and was viewed by all as a serious setback.

2. Within the DILE classrooms procedures were not established to have an ongoing evaluation of the daily progress of the DILE students. Such data would suggest improvements in the program throughout the year.

3. The training program in Behavior Modification clarity as arranged for DILE, and other staff was not adequate.

4. There was very limited parent involvement in the project.

5. A follow-up study of last year's DILE students was not planned.

6. Although good relations between the DILE administration and the separate school administrations were initiated, the DILE project director did not follow through and once again, principals at the close of the academic year were disillusioned by the program.

7. The DILE staff did not systematically apply the DILE design. This mismanagement of the DILE design occurred because the staff was not trained in Behavior Modification and because the central administration did not adequately supervise the program.

8. The project administration did not follow through on its promise to provide pre and post CTBS scores on DILE and control students, did not implement a system for the collection of ongoing process data, and did not provide the promised attendance data.

9. There was no design to return students to the mainstream of the D. C. public schools as specified in the proposed objectives.

10. The DILE classrooms did not fulfill the objective of serving as a laboratory for the training of graduate students or staff.

C. Specific recommendations:

Data and Research

1. A program to evaluate the outcome of the DILE treatment was established but not implemented. Unfortunately there is also little on-going evaluation of the process in the DILE classrooms. Procedures for on-going evaluation of the classrooms and final outcome evaluation should be implemented.

2. On-going (process) evaluation should be concerned with: (a) rate of earning checks, (b) rate of completing tasks, (c) techniques of behavior control used by staff.

3. Procedures should be developed for measuring changes in social behavior.

4. Summary data sheets should be developed and students should be taught to chart their own progress.

5. Staff members should be trained in the fundamentals of data treatment.

6. Observation program (incorporating the use of video tape recordings) should be established as part of the on-going evaluation.

7. The proposed DILE objectives called for research to be done. None was. Experiments should be designed to answer questions specified in the DILE program.

Classroom management and routine

1. The DILE staff should be trained during the summer so that the classes may begin on time. Training and consultation should continue throughout the year.

2. Requisition procedures should be changed if possible, so that materials arrive on time.

3. The design should be closely adhered to as suggested in these recommendations.

4. Checks should be given out for specific behaviors while students are working (not on a time basis).

5. Rules should be specified in positive ways, be visible, and be reviewed frequently.

6. Checks should be exchanged more frequently for a wider variety of back-up reinforcers.

7. Natural reinforcers such as: (a) opportunity to lead opening exercises, (b) opportunity to be a teacher's helper, (c) opportunity to choose a seat should be employed.

8. Checks should only be given out after the completion of work which meets the criterion of success.

9. Contingencies should be arranged so that the more work completed, the higher the pay; not so that a student receives his checks if he appears to be experiencing difficulty and is working slowly.

10. Students who are absent or late should only receive checks that they earn while in class and not receive checks when they arrive late.

11. The individualized work period at the beginning of the day should be shortened. A different type of (non-academic) group activity (e.g., crafts) should be scheduled from 10:00-10:30. Recess could be made contingent on the completion of 2 individual tasks and 1 task during the group activity.

12. Presently there is no reinforcement for tasks completed in small or large group activities. This should be changed. Perhaps weekly field trips could be bought with checks, but the last hour of free time each day might be earned with task completion during the small and large group activities.

13. Data from all three classes suggest that group activities should be minimized and those that do occur should be built to help students achieve specified behavioral objectives.

14. The Instructional Objective Sheet should be used in individual and group activities.

15. Each student should be trained to chart his own academic progress.

16. Teachers must use their own social and teaching behaviors in ways consistent with a behavior modification approach.

17. Teachers should emphasize private, not public, interactions with students.

18. There should not be any use of punishment since teachers have access to very few (if any) effective punishers.

19. The use of the Borg-Warner Systems 80 machine should be more systematic. Systematic reinforcement contingencies should be associated with its use.

20. Whenever possible, students should be seated at tables instead of desks.

21. Teachers should verbally specify the behaviors that they reinforce or punish.

22. To maintain the reinforcing properties of the checks at all times, it would be wise if surprise auctions, at random intervals could be programmed into the DILE design. Such auctions might occur frequently at first and then less frequently - perhaps once every two weeks.

23. To increase the value of a token (checkmark), many back-up reinforcers should be available in addition to free time and field trips.

24. A curriculum to develop social behaviors should be built and procedures developed to measure changes in social behaviors.

25. Overall summary data sheets which reflect the daily progress of each student with regard to checks earned, and tasks complete should be designed and maintained.

26. A social studies curriculum should be developed.

27. Rules should be established to guide staff in giving out checkmarks to students.

Training

1. Intensive staff training should occur during the summer. This training should cover development and use of curriculum materials as well as the techniques of Behavior Modification.

2. A less intense in-service training program in Behavior Modification should be on-going throughout the academic year. Such a program might also serve personnel not associated with DILE.

3. A program for training parents of DILE (and other) students should be developed. This program would foster collaboration between home and school and develop the child-rearing skills of parents.

Administration and Public Relations

1. DILE services to school and community should be expanded.

2. Trained DILE staff members could serve as consultants in Behavior Modification to other teachers in the school.

3. The DILE classroom with its unique procedures and curriculum materials should become more of a resource to the host school.

4. A parent program should serve the needs of the broader community by accepting parents whose children are not DILE students.

5. A full-time project coordinator should be employed.

D. Conclusions:

The DILE project has not adequately fulfilled its objectives. It has failed in demonstrating substantial academic progress of students, in providing a resource for the host schools, in providing a training program for parents, in fostering the conduct of educational research. It has failed in maintaining good relations with 9 elementary school principals. These shortcomings can be attributed mostly to the failure of the project director of DILE in coordinating and supervising the DILE project. DILE has succeeded in providing classrooms in which previously uncontrollable students were contained, and in improving the attendance of most of the DILE students. It is interesting to note that improved attendance occurred in the 2 classrooms in which the staff adhered most closely to the DILE design, and that attendance decrements occurred in the one DILE classroom in which the DILE design was abandoned. In all 3 classes, the staff did not conscientiously apply the DILE design.

There is nothing magical about behavior, be it staff or student behavior. An environment must be designed to support desirable staff behavior just as an environment is designed to support desirable student behaviors. It is no wonder that the behaviors of DILE staff deteriorated through the academic year. The project office neglected its responsibilities of providing the necessary aspects of the staff's environment to support good staff behaviors.

Several principals expressed concern over the inexperience of DILE staff. This concern is understandable but must be viewed from a proper perspective. The major reason for seeking inexperienced staff for DILE classrooms is that such a staff does not bring with them a repertoire of teaching behaviors incompatible with DILE principles or procedures. It is easier to teach an inexperienced teacher to ignore undesirable student behavior than to re-train a teacher who has responded to (attempted to punish) undesirable student behavior for several years. This evaluator agrees that new teachers are possibly the best potential teachers for DILE, but only if they are trained, closely supervised, and assisted.

There has been too much successful use of behavior modification principles in special education classrooms, in social adjustment classrooms, in crisis classrooms, etc., to seriously question if these procedures are useful or effective. The problem in DILE does not lie in the design, nor does it lie in the inexperience of the staff. The failure of DILE lies in the failure in supervision, coordination, and implementation of a good design.

To correct these deficiencies, a project coordinator, knowledgeable in behavior modification, must be found to work full-time on the administrative aspects of DILE. Secondly, an on-going training program in Behavior Modification must be instituted for DILE staff. Third, the evaluator suggests that there be a commitment from the host school for more than one year in order that problems might be resolved and adequate time be provided for the program to succeed.

Final Report

to

Public Schools of the District of Columbia
Department of Special Education
Developmental Center for Special Education
1619 M Street, N. W.
Washington, D. C. 20036

ESTABLISHING ADAPTIVE BEHAVIORS IN SEVERELY MENTALLY RETARDED CHILDREN

Submitted by
Leopold O. Walder, Ph.D.
16 Lakeside Drive
Greenbelt, Maryland 20770

July, 1971

Project Summary

Title: Severely Mentally Retarded: Training Adaptive Behaviors

Group Served: Severely Mentally Retarded Children

Project Location: Six elementary schools: Lenox, Lenox Annex,
Magruder, Mann, Merritt, and Richardson

Title III Funds Allocated: $24,397

Number of Children Served: 38 Students

Background and Rationale:

Research shows that in the District of Columbia, there are 550 severely mentally retarded children. Some of these children of school age have never experienced any formal training. Adaptive Behavior, an innovative on-going program, provides a method of correcting and serving the needs of these children. A continuation proposal for 1970-1971 requested an increase in classes from one experimental class to sixteen classes, sixteen teachers, eight teacher aides, thirty-two research assistants and one hundred twenty-eight children from schools throughout the District. While the request was scaled down, an expanded program was funded, which included eight teachers, four teacher aides, and seven classes. The classes were divided into control and experimental groups.

Project Objectives-Continuation:

A. To investigate the effect of training and supervision in the operant conditioning paradigm upon the social and academic performance levels of severely mentally retarded children.

B. To investigate the effect of a teacher aide upon the behavioral, social, and academic performance levels of SMR children.

C. To investigate the effect of teachers' specialized academic preparation in Mental Retardation upon the behavioral, social, and academic performance levels of SMR children.

D. To conduct and evaluate a parent program designed to teach parents to use the operant conditioning paradigm as a home technique for behavioral change with their own SMR children.

Project Methodology:

Initially the design in the continuation proposal was a 2 x 2 x 2 arrangement: teachers would be trained in operant conditioning techniques and would be under supervision. Classes taught by these teachers would be the experimental classes. Teachers with general training not under direct supervision would have control classes.

Further divisions of the design were: (a) teachers with nine hours or more of formal training in mental retardation with aides, and (b) those without aides, (c) teachers with eight hours or less of formal training in mental retardation with aides and (d) those without aides.

Reduction in staff for the program and other limitations necessitated changes in the design as well as in the objectives. The program finally operated around seven classrooms. However, of these seven only one was under the direct control of the project director. The other six classes were only indirectly influenced by the director.

Evaluation Plan:

As an on-going evaluation, this staff assessed and rated each student on the Adaptive Rating Scale. These ratings were obtained before the start of the program and at the end of the program. (Post testing was not done for all classes.)

All classes were observed by a consultant with expertise in operant conditioning techniques. The consultant was contracted by the Department of Research and Evaluation and was assisted by a member of the staff. Data from each class were collected and analyzed and conferences were held with the director after each observation to discuss the findings. At the end of the year final evaluations were made of classrooms and students.

Results:

In those classes where operant conditioning techniques were utilized, improvement in the child's learning environment, as well as in his behavior, was evident.

Moreover, the program did introduce improved teaching of SMR children. The use of this technique enabled the children to develop more rapidly than the use of other approaches without subjecting the children to strict discipline or authoritarianism on the part of the teacher.

It should be noted, however, that even in those classes where operant conditioning was not used, some growth was shown by most of the children, although their growth was less pronounced.

Consultant's Comments and Recommendations:

In view of the results indicated above, the consultant feels that operant techniques should be continued in teaching SMR children. He recommends that the project be designed within the bounds of available resources. Further recommendations include that training and supervision of teachers in operant techniques be developed and implemented, that the Adaptive Behavior Scale be improved, and that parents of SMR children be given guidance in helping their children learn at home.

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I. Contents of this report.

This report outlines this evaluator's role in his relation to staff and students of the Public Schools of the District of Columbia. It contains the description of certain aspects of the program from the Fall of 1970 through June, 1971. It makes some recommendations and it specifies the contents of a proposed training program for teachers.

II. The program.

This program was designed:

A. To investigate the effect of training and supervision in the operant conditioning paradigm upon the social and academic performance levels of severely mentally retarded children.

B. To investigate the effect of a teacher aide upon the behavioral, social, and academic performance levels of SMR children.

C. To investigate the effect of teachers' specialized academic preparation in Mental Retardation upon the behavioral, social, and academic performance levels of SMR children.

D. To conduct and evaluate a parent program designed to teach parents to use the operant conditioning paradigm as a home technique for behavioral change with their own SMR children.

The original design was to study in 16 SMR classrooms the joint effects of three independent variables: amount of the teacher's academic training in mental retardation, the types of training and supervision given to the teacher during the project, and the assignment of a teacher's aide to the classroom. There were to be eight different treatment combinations with two classrooms in each treatment combination. Support from the D.C. Schools apparently was not available and, instead, only seven classes were available with only three aides. The program which finally was set up was a compromise imposed by a reduction of funding.

Because of a reduction in the support given to this program, the design and objectives of the program had to be modified. The program was built around the children in seven classrooms designated as classrooms for SMR (severely mentally retarded) children. Of these seven, only one (at School 7) was under the direct control of the project director; the selection and management of the other six classrooms were only indirectly influenced by the project director. As such, the prior designation of a classroom as one which is to use operant conditioning is not as important as the post hoc identification of a classroom as one which in fact did use operant conditioning. This evaluator obtained relatively objective descriptions of each teacher's approach to the children in her attempts to influence the children's behavior. These descriptions are used as a basis for identifying which classrooms were using an operant conditioning approach. On most occasions, Mrs. Lavolia Vails made concurrent but independent observations of these classrooms. In this way some rough estimate of the interjudge (between her and me) agreement concerning these descriptions is available.

The effect of an operant conditioning approach on the children's social and academic performance levels was partly assessed by rating each of the children on the Adaptive Behavior Scale. These ratings were obtained before the start of this program and will be obtained at the end of the program. On this measure also estimates of interjudge agreement were obtained.

The effect of a teacher aide working along with the teacher could not be assessed. This objective of the program was also not met because of reduction in support available to the project director. For similar reasons, the objectives dealing with the teachers' specialized training in Mental Retardation and the parent program were also not met.

In summary, this program deals with the effect of an operant conditioning approach, as provided by the teacher (and aide), upon the children's behavioral, social, and academic performance levels in seven classrooms for SMR children.

III. The evaluator's role.

The role of an evaluator of action research is comprised by the fact that young children are the subjects of the research. In this sense he addresses himself not only to the welfare of the research project but also to the welfare of the children. It is his job to give advice concerning research design, data collection and analysis, and interpretation of results. It is also his job to collect data, analyze them, and present them as part of the evaluation. He finally is to demonstrate his techniques of evaluation and to make recommendations to maintain and improve the project.

Specifically, I have consulted with Mrs. Lavolia Vails and Mr. Edward Wulkan in methods of evaluation and in possible improvements in the program. In this connection while certain aspects of the original design were unattainable, we have attempted to arrange the gathering and grouping of information to maximize the benefits of this action research.

IV. The Adaptive Behavior Scale.

The Adaptive Behavior Scale (a copy of which is appended) is a set of behavioral descriptions designed to measure children's adaptive behavior. There are 50 items in Part I and 43 items in Part II. (These items are from a set of 67 items in Part I and 44 in Part II. Omitted from the original sets were 17 items in Part I and one item in Part II. The original item numbering is retained.) It is our purpose here to evaluate some of the scale's psychometric properties. In this project we were able only to assess its interjudge agreement (presented below) and perhaps its validity (the change of description of the children on this scale from early in the school year to late in the school year).

In order to assess the scale's interjudge agreement, the following was done: In the early part of the school year, four children were rated by two raters each on Part II of the scale. The agreements between these two raters are presented in Table 1. In the second part of the project, 16 other children were rated by three raters each on Parts I and II of the scale. The agreements among these three raters are presented in Tables 2, 3, 4, and 5. Tables 2 and 3 are based on ratings of nine children in the class in School 7., a class designed to be andjudged to be an operantly oriented class; Table 2 contains the ratings in Part I, Table 3 contains the ratings in Part II. Tables 4 and 5 are based upon ratings of seven children in one of two classes in School 3/4. While one of these classes was designed to be operant and the other not, our judgments of these were that neither of them was operantly oriented.

In the scale there are three types of items. One type requires two separate responses of the rater. Item 2. in Part II is presented here as an example to illustrate the two responses required:

(2) Damages Personal Property

Check No or Yes If Yes select all statements that are true of the child.

a. Rips, tears, or chews own clothing
b. Soils own property
c. Deliberately tears up own magazines, books, or other possessions
d. Other:

The first response required is to check Yes or No. The second response is required if the first response was Yes; it is to then select all the specific statements (or details) that describe the child being rated.

A second type of item in the scale is the same as the above item type, except that it requires only the second of the two responses. Item 21. of Part I is presented here as an example to illustrate the required response:

(21) Miscellaneous Independent Functioning

Select all statements that apply.

a. Has ordinary control of appetite, eats moderately
b. Knows postage rates, can buy stamps from Post Office
c. Looks after personal health, e.g., changes wet clothing
d. Knows how to deal with simple injuries, e.g., cuts, burns

The response required is to select all the specific statements (or details) that describe the child being rated.

A third type of item in the scale requires only one response of the rater. Item 1. in Part I is presented here as an example to illustrate the required response:

(1) Use of Table Utensils

Select the one statement that best describes the child's use of table utensils.

6 Uses knife and fork correctly and neatly
5 Uses table knife for cutting or spreading
4 Feeds self with spoon and fork neatly
3 Feeds self with spoon and fork--considerable spilling
2 Feeds self with spoon--neatly
1 Feeds self with spoon--considerable spilling
0 Feeds self with fingers or not at all

The response required is to select the one statement from a list of behavioral descriptions which are ranked in order of difficulty (i.e., of competence).

It should be noted that some of the first and second item types include (lettered) negative, undesirable behaviors and others include (also lettered) positive, desirable behaviors. One might total the number of desirable behaviors and separately total the number of undesirable behaviors. The third item type seems to be unidirectional in that the statements are so numbered that the higher the number, the more competent the child. The total "scale" must be viewed as, at best, a rather comprehensive list of behaviors rather than a scale in any strict psychometric sense. It would seem to offer a set of items from which a scale could be built. We could, if it were desired, build such a scale for the D. C. Public Schools.

In Table 1 the frequencies of agreement (A) and disagreement (D) for the Yes-No rating are presented for each of the 43 items in Part II in the early part of the project. (Note that item 35 was omitted.) On 19 of the 43 items, there was agreement between the two raters.

Also in Table 1 are presented the frequencies of agreement (A) and disagreement (D) for the selection of statements. A third frequency is presented for those cases which do not apply (DNA). This occurs for the children for whom one or both of the raters made a "No" response. By this measure seven of the 19 items (4, 12, 14, 17, 28, 38, 40) yielded complete interjudge agreement.

Inspection of Tables 3 and 5 suggests that only item 4 of Part II holds up over three estimates of interjudge agreement. This is a stringent requirement since in the latter part of the study, three raters had to agree instead of only two. As stated above, a more detailed analysis is deserved by this scale.

Inspection of Tables 2 and 4 suggests that 14 of the 50 items appear to yield sufficient interjudge agreement to be useful indices of adaptive behavior. On these items (numbers 3, 5, 21, 28, 30, 32, 36, 37, 41, 46, 48, 50, 53, and 65) there was no more than one child in seven (in Table 4) or in nine (in Table 2) on which there was disagreement on the detailed behavioral descriptions; and for the first item type, there was no more than one child on which there was more than one disagreement on the Yes-No rating.

In view of the low survival rate of the 19 items in Part II of the scale when subjected to cross validation (in the later part of the project), we are not optimistic of what future can be expected of the 16 items in Part I with adequate interjudge agreement among three raters who are rating 16 children.

This short exercise in estimating the objectivity of this scale is presented here as an illustration of method rather than as a definitive statement of the acceptability of the measuring device. A larger sample of paired raters on larger samples of children is needed with more time and support for evaluating and improving the scale. The validity of the scale (e.g., changes in score as a function of amount and type of classroom experience) is one of the outputs of this program. One must remember that a ceiling on such validity is imposed by any form of unreliability, including less than perfect objectivity (e.g., interjudge agreement).

An unknown factor here is the training and motivation of the raters. If a more comprehensive training program were available for not only the teachers of SMR classes (see below in Section VII.) but also for the raters of the children's adaptive behaviors, then perhaps a larger number of items would show stable interjudge agreement.

V. Observation of the Children's learning environment.

Seven classes were observed in the early part of this project. These seven classes are:

School	(Teacher)	
1.	D.	Control (to be non-operant)
2.	E.	" " " "
3/4.	F.)	" " " "
	G.)	Experimental (to be operant)
5.	H.	" " " "
6.	I.	" " " "
7.	J.	" " " "

These classes were observed according to the schedule available in Table 6. The same seven classes were observed in the later part of this project.

The method for observing these classes was as follows: The observer sat in a chair in the classroom with a pad of paper, a pencil, and a wrist watch. The paper was lined and was marked off with four columns. In the first column the observer, when he could, wrote in the time; in the next three columns he wrote, respectively, (A) what the teacher did to get the children to do something (e.g., an instruction to sing a song), (B) what the children did immediately after the teacher's instruction (e.g., sing a song), and (C) what the teacher did during or immediately after the children behaved as they did as stated in B. The contents of the first of these three columns might tell if the teacher is giving lots of instructions or antecedents (A) to the children's behavior. The second of the columns might reveal what the children are doing (B for behavior) in response to the teacher's control techniques. (Individual children could not be followed by this observer.) The third column shows how much the teacher paid off (positively or negatively) the children's behaviors which she desired or not (C for consequence). This recording system then tends to focus on the environment provided to the children by the teacher (and aide).

A sample of the observations made is presented in Table 6.

Table 6 indicates that the teacher and aide provided an environment to the children in their class which did not use much antecedent urging to work, but which seemed to succeed because of the large amount of positive consequences for good work (while ignoring undesirable behaviors). This excerpt is from one of the best operant oriented classrooms observed.

By using such observation procedures, it became very obvious to this observer that two of the classes called "experimental" (i.e., they were supposed to have used operant techniques) were in fact using operant techniques and getting excellent results from the children. The other two "experimental" classes used operant techniques little, if at all. The children were either not progressing very fast or they were progressing in limited ways under a harsher, punishment oriented, control system. The "control" classrooms (i.e., they were not supposed to have used operant techniques) were intermediate in effectiveness with the children and in positive approach, being inferior to the two best experimental classrooms and superior to the two worst ones.

On the basis of these observations, one comes to the strong belief that teacher behaviors are educational issues of the highest order. They have direct relevance upon the welfare of the children. We do not know the results of the analysis of changes in scores from the Adaptive Behavior Scales on the children in these seven classrooms.

VI. The teachers' learning environment.

There had been plans for two types of learning environments for the teacher, "Experimental" and "Control." They would have consisted of training and supervision in operant methods or in general methods. However, only one or two teachers accepted operant training and supervision. Two teachers who had said they would accept operant training, in fact, did not cooperate. The remaining three teachers (control) were not asked to accept operant training and were not given it.

As stated above, the results of the observations of these several teachers indicated that the two teachers who accepted operant training and supervision demonstrated the greatest amount of behavior control, being able to get the highest percentage of children to perform a variety of academic and social tasks with the least harshness on the part of the teacher. The two teachers who promised to accept operant training and supervision, but did not when it was offered, demonstrated the least amount of behavior control, being able to get a more limited variety of performance from the children and then only with some harshness of method. In none of the seven classes did the children seem to suffer. In none of the classes (except perhaps the two best) were the children behaving at a high level. The reader is cautioned not to accept this latter statement as a necessity because, "after all, these are SMR children."

The observations made in the 12 revisits in the later part of the project did not differ markedly from the 11 visits in the early part of the project. They allow us to note that a needed change in the SMR program of the D. C. Public Schools is an enlarged diagnostic program which will yield individual recommendations for placement and educational environment for each child. There is also need for remedial specialists and supporting equipment for these specialists. The teachers of SMR classes would be encouraged to work even harder than they now do if the SMR program were given more status and support. Perhaps a periodic meeting of the teachers of SMR classes would be morale boosting as well as allow the teachers to make and to receive recommendations. Our observation visits and revisits which included our attempting to listen to and to praise the teacher (as well as the aide, the principal, and the students) seemed not only to desensitize them to us, but also to give them all some encouragement.

VII. Conclusions and recommendations.

This evaluator has enough information to reach some conclusions and make some recommendations:

1. Once again the proper application of operant techniques improves the child's learning environment and seems to improve his behavior. It is, therefore, recommended: That operant techniques be used in teaching children.

2. The range of quality and effectiveness among the seven project teachers in crucial teaching behaviors is large and important. Since the teaching behaviors directly affect the children, a recommendation would be that teacher training and supervision techniques be instituted which will assure that all project children experience adequate learning environments. It is, therefore, recommended: That a training and supervision program for teachers, such as described in Section VII above, be developed and implemented.

3. The program that was implemented was only a part of the one planned. For this reason a reduced amount of information is available. A recommendation would be that the project be so designed as to realistically reflect the resources that can be allocated.

4. The Adaptive Behavior Scale needs improvement. It is recommended: That the scale be improved as part of the proposed Teacher Training Program.

6. Parents of SMR children need guidance in helping their children learn better at home. This was one of the intentions of the original SMR project. It is recommended: That the Teacher Training Program include provisions for giving interested parents skills in helping their children learn better at home.

7. The evaluator recommends a training program for teachers of SMR classes. It would be possible to offer a training and supervision program to teachers of SMR classes which had built-in incentives for the teachers, evaluation of the training and supervision program, and provision for it being useful after the major outside funding had been terminated. Operant technology as applied to the SMR classroom could be taught each summer to interested teachers. Outside funding could be obtained to develop and offer the training program. On the basis of the teacher's performance in the initial training summer and his performance during the subsequent academic year with children in an SMR class, he would be offered a position in the next summer's training program to learn more, to help teach others, and to participate in developing self-instructional materials for use by the D. C. Public Schools after the outside funding has been terminated. The training program, once it is more developed, can be made available to others in the school system as well as to interested parents of SMR children. Such a program could be developed and funding sought for it by this evaluation in cooperation with appropriate D. C. School personnel. For example, Mrs. Vails and Mr. Wulkan have been close to this SMR project and could well be the coordinating personnel from the District of Columbia. This evaluator could submit a more detailed concept paper and a capability statement, if interest in such a program were expressed by appropriate D. C. Public School official(s).

This project has identified and initiated improved teaching of SMR children. This improved teaching seems to help the children develop more rapidly than other approaches appear to accomplish. It is recommended that we move in the direction identified and started by this project.

Training and incentives for improved teacher behavior can be developed around a summer training program with supervision and evaluation during the academic year. Such a program probably can be funded if an appropriate application is submitted. This type of program which also builds self-instructional training materials for the teachers would serve the school system after the outside funding has ceased. This evaluator would be pleased to help the D. C. Schools take steps in the above-described direction.

Table 1. Agreement between two raters on four SMR children in Part II of the Adaptive Behavior Scale.

	Yes-No Rating			Selection of Statements		
	Agree		Disagree			
Item	NN	YY	NY or YN	A	D	DNA
1	1	3	0	0	3	1
2	4	0	0	0	0	4
3	2	0	2	0	0	4
4	1	2	1	2	0	2
5	4	0	0	0	0	4
6	1	0	3	0	0	4
7	2	1	1	0	1	3
8	1	2	1	0	2	2
9	1	3	0	0	3	1
10	1	0	3	0	0	4
11	1	1	2	0	1	3
12	2	2	0	1	1	2
13	1	2	1	0	2	2
14	2	2	0	1	1	2
15	1	2	1	0	2	2
16	2	1	1	0	1	3
17	1	2	1	1	1	2
18	3	0	1	0	0	4
19	3	1	0	0	1	3
20	4	0	0	0	0	4
21	2	1	1	0	1	3
22	3	1	0	0	1	3
23	2	0	2	0	0	4
24	3	1	0	0	0	4
25	1	0	3	0	0	4
26	1	3	0	0	3	1
27	4	0	0	0	0	4
28	2	1	1	1	0	3
29	4	0	0	0	0	4
30	4	0	0	0	0	4
31	3	1	0	0	1	3
32	1	3	0	1	2	1
33	4	0	0	0	0	4
34	2	0	2	0	0	4
35	-	omit	-	-	omit	-
36	3	0	1	0	0	4
37	4	0	0	0	0	4
38	2	2	0	2	0	2
39	0	2	2	0	2	2
40	0	3	1	2	1	1
41	3	0	1	0	0	4
42	4	0	0	0	0	4
43	2	0	2	0	0	4
44	3	0	1	0	0	4

Table 2. Agreement among three raters on nine children in School 7. SMR class in Part I of the Adaptive Behavior Scale in the later part of the project.

	Yes-No Rating				Selection of Statements				
	A				A				
Item	Y	N	D	DNA	3/3	2/3	D	DNA	No. of Details
1	0	0	0	9	1	8	0	0	7
3	0	0	0	9	9	0	0	0	4
4	5	1	3	0	0	3	0	6	9
5	0	0	0	9	8	1	0	0	4
6	8	0	1	0	0	0	0	9	7
7	7	0	0	2	2	0	0	7	5
11	4	3	2	0	0	0	4	5	7
14	9	0	0	0	0	0	0	9	4
15	6	0	3	0	1	0	0	8	4
17	6	0	3	0	1	0	0	8	5
21	0	0	0	9	4	2	0	3	4
24	0	0	0	9	5	2	0	2	7
25	9	0	0	0	1	0	0	8	6
26	8	1	0	0	2	0	0	7	5
27	0	0	0	9	3	4	0	2	4
28	0	0	0	9	6	3	0	0	5
30	0	0	0	9	5	4	0	0	3
32	0	0	0	9	7	2	0	0	6
33	9	0	0	0	0	0	0	9	6
34	4	2	3	0	2	1	1	5	5
35	0	0	0	9	0	0	2	7	4
36	0	0	0	9	7	2	0	0	5
37	0	0	0	9	7	2	0	0	6
38	3	0	6	0	0	0	2	7	4

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 2 (continued)

	Yes-No Rating				Selection of Statements				
	A				A				No. of Details
Item	Y	N	D	DNA	3/3	2/3	D	DNA	
39	0	0	0	9	0	3	3	3	4
40	0	0	0	9	4	2	0	3	6
41	0	0	0	9	6	2	1	0	6
42	0	9	0	0	1	4	4	0	6
43	0	0	0	9	3	5	1	0	3
44	0	0	0	9	6	0	3	0	3
46	0	0	0	9	2	6	1	0	4
48	0	0	0	9	9	0	0	0	2
50	0	0	0	9	3	6	0	0	3
51	6	1	2	0	0	1	1	7	5
52	1	5	3	0	0	0	1	8	4
53	0	0	0	9	6	3	0	0	4
54	5	2	2	0	0	0	2	7	6
55	0	0	0	9	3	5	1	0	5
56	1	3	5	0	1	3	5	0	6
58	0	0	0	9	1	3	5	0	6
59	0	0	0	9	2	6	1	0	4
60	0	0	0	9	6	3	0	0	4
61	6	1	2	0	3	1	2	3	5
62	5	2	2	0	2	1	4	2	5
63	0	0	0	9	0	5	4	0	5
64	0	0	0	9	3	5	1	0	4
65	0	0	0	9	5	3	1	0	4
66	0	0	0	9	0	2	7	0	6
67	0	0	0	9	1	3	2	3	7

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 3. Agreement among three raters on nine children in School 7. SMR class in Part II of the Adaptive Behavior Scale in the later part of the project.

	Yes-No Rating				Selection of Statements				
	A				A				
Item	Y	N	D	DNA	3/3	2/3	D	DNA	No. of Details
1	3	3	3	0	0	0	3	6	12
2	0	7	2	0	0	0	0	9	4
3	0	7	2	0	1	0	0	8	4
4	1	7	1	0	1	1	0	7	6
5	1	5	3	0	0	0	2	7	5
6	1	2	6	0	1	0	3	5	6
7	2	3	4	0	0	2	0	7	6
8	1	5	3	0	1	0	2	6	6
9	2	3	4	0	0	1	3	5	6
10	2	6	1	0	0	0	2	7	6
11	0	4	5	0	1	0	1	7	5
12	1	2	6	0	1	0	4	4	5
13	2	0	7	0	0	0	7	2	7
14	2	4	3	0	0	0	2	7	6
15	0	5	4	0	1	0	3	5	5
16	0	9	0	0	0	0	0	9	4
17	3	2	4	0	0	0	5	4	5
18	2	6	1	0	1	1	1	6	5
19	1	5	3	0	1	0	1	7	6
20	2	6	1	0	2	0	0	7	6
21	1	5	3	0	1	0	5	3	6
22	1	7	1	0	0	1	0	8	5
23	1	7	1	0	0	1	1	7	9
24	0	0	7	3	0	0	0	9	6

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 3 (continued)

	Yes-No Rating				Selection of Statements'				
	A				A				No. of
Item	Y	N	D	DNA	3/3	2/3	D	DNA	Details
25	0	7	2	0	0	1	8	0	8
26	2	5	2	0	0	2	1	6	8
27	1	7	1	0	0	0	2	7	9
28	1	7	1	0	2	0	0	7	10
29	1	8	0	0	0	0	1	8	7
30	0	8	1	0	0	0	1	8	7
31	0	6	3	0	0	0	0	9	10
32	0	3	6	0	0	0	0	9	5
33	0	9	0	0	0	0	0	9	4
34	0	8	1	0	0	0	1	8	5
36	0	9	0	0	0	0	0	9	9
37	1	6	2	0	0	0	1	8	4
38	1	3	5	0	0	0	6	3	5
39	2	1	6	0	1	0	4	4	5
40	0	1	8	0	0	0	4	5	5
41	0	8	1	0	0	0	0	9	7
42	0	8	1	0	0	0	1	8	4
43	1	2	6	0	3	0	0	6	11
44	1	8	0	0	1	0	0	8	5

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N - The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement under the 3 raters
DNA = The number of children for whom the category Does Not Apply.

Table 4. Agreement among three raters on seven children in School 3/4. SMR classes in Part I of the Adaptive Behavior Scale in the later part of the project.

	Yes-No Rating				Selection of Statements				
	A				A				
Item	Y	N	D	DNA	3/3	2/3	D	DNA	No. of Details
1	-	-	-	7	2	2	3	0	7
3	-	-	-	7	3	4	0	0	4
4	0	3	4	0	1	1	4	1	9
5	-	-	-	7	5	2	0	0	4
6	4	1	2	0	0	0	2	5	7
7	1	1	5	0	2	0	0	5	5
11	0	1	6	0	0	1	4	2	7
14	1	1	5	0	1	0	1	5	4
15	2	1	4	0	2	1	1	3	4
17	1	5	1	0	2	3	0	2	5
21	-	-	-	7	4	2	1	0	4
24	-	-	-	7	1	0	6	0	7
25	1	1	5	0	0	0	3	4	6
26	4	1	2	0	0	1	1	5	5
27	-	-	-	7	3	4	0	0	4
28	-	-	-	7	2	5	0	0	5
30	-	-	-	7	5	1	1	0	3
32	-	-	-	7	7	0	0	0	6
33	7	0	0	0	7	0	0	0	6
34	2	4	1	0	0	1	4	2	5
35	-	-	-	0	1	5	1	0	4
36	-	-	-	0	1	3	3	0	5
37	-	-	-	7	6	1	0	0	6
38	1	5	1	0	1	5	1	0	4
39	2	2	3	0	1	2	1	3	4
40	0	0	0	7	0	4	3	0	6
41	-	-	-	7	1	5	1	0	6
42	-	7	-	0	6	1	0	0	6

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 4 (continued)

	Yes-No Rating				Selection of Statements				
	A				A				
Item	Y	N	D	DNA	3/3	2/3	D	DNA	No. of Details
43	-	-	-	7	0	4	3	0	3
44	-	-	-	7	5	-	2	0	3
46	-	-	-	7	1	6	0	0	4
48	-	-	-	7	1	6	0	0	2
50	-	-	-	7	4	2	1	0	3
51	0	5	2	0	0	3	2	2	5
52	1	1	5	0	0	1	4	2	4
53	-	-	-	7	1	6	0	0	4
54	1	1	5	0	1	-	3	3	6
55	-	-	-	7	2	2	3	0	5
56	1	5	1	0	0	1	4	2	6
58	-	-	-	7	0	1	5	2	6
59	-	-	-	7	1	3	3	0	4
60	-	-	-	7	1	2	4	0	4
61	6	0	1	0	1	3	3	0	5
62	5	0	2	0	1	2	4	0	5
63	-	-	-	7	1	0	6	0	5
64	-	-	-	7	1	0	6	0	4
65	-	-	-	7	2	4	1	0	4
66	-	-	-	7	0	3	4	0	6
67	-	-	-	7	0	4	3	0	7

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 5. Agreement among three raters on seven children in School 3/4. SMR classes in Part II of the Adaptive Behavior Scale in the later part of the project.

	Yes-No Rating				Selection of Statements				
	A				A				No. of Details
Item	Y	N	D	DNA	3/3	2/3	D	DNA	
1	3	1	3	0	0	0	5	2	12
2	0	4	3	0	0	0	1	6	4
3	0	4	3	0	1	0	0	6	4
4	1	2	4	0	3	0	1	3	6
5	0	4	3	0	0	0	1	6	5
6	4	1	2	0	0	1	3	3	6
7	1	4	2	0	0	0	2	5	6
8	0	3	4	0	2	0	1	4	6
9	0	3	4	0	0	0	0	7	6
10	0	2	5	0	1	0	2	4	6
11	0	4	3	0	1	0	0	6	5
12	0	2	5	0	0	0	2	5	5
13	2	1	4	0	0	0	5	2	7
14	0	7	0	0	0	0	7	0	6
15	0	4	3	0	0	0	7	0	5
16	0	7	0	0	0	0	7	0	4
17	0	2	5	0	0	3	4	0	5
18	0	5	2	0	0	1	6	0	5
19	2	2	3	0	0	1	3	3	6
20	0	2	5	0	1	0	1	5	6
21	2	4	1	0	0	0	3	4	6
22	1	1	5	0	0	0	4	3	5
23	1	1	5	0	0	0	3	4	9
24	0	4	3	0	0	0	1	6	6

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 5 (continued)

	Yes-No Rating				Selection of Statements				
	A				A				
Item	Y	N	D	DNA	3/3	2/3	D	DNA	No. of Details
25	0	6	1	0	0	0	0	7	8
26	0	0	7	0	0	0	5	2	8
27	0	6	1	0	0	0	0	7	9
28	0	3	4	0	1	0	1	5	10
29	0	7	0	0	0	0	0	7	7
30	0	5	2	0	1	0	0	6	7
31	0	5	2	0	0	0	0	7	10
32	0	2	5	0	0	1	1	5	5
33	0	7	0	0	0	0	0	7	4
34	0	7	0	0	0	0	0	7	5
35	OMIT								
36	0	7	0	0	0	0	0	7	9
37	0	1	6	0	0	0	0	7	4
38	1	1	5	0	1	0	1	5	5
39	1	0	6	0	1	1	0	5	5
40	0	2	5	0	0	0	1	6	5
41	0	5	2	0	0	0	0	7	7
42	0	3	4	0	0	0	0	7	4
43	0	3	4	0	0	0	1	6	11
44	0	2	5	0	0	0	0	7	5

3/3 = The number of children on whom 3 of the 3 raters agree.
2/3 = The number of children on whom 2 of the 3 raters agree.
N = The number of children on whom all 3 raters say "No."
Y = The number of children on whom all 3 raters say "Yes."
D = The number of children on whom there is not complete agreement among the 3 raters.
DNA = The number of children for whom the category Does Not Apply.

Table 6. Sample of the observations of the Antecedents, Behaviors, and Consequences in one of the operant oriented classrooms.

TIME	A	B	C
10:11 am	Aide: "when you're finished raise your hand"		
		Hand up	
			Aide: inspects work and then gives "pleasurable" activity
		Hands up	
			Teacher: inspects Aide: passes out tokens for sitting and working
10:14 am		A boy wanders around	
			Not responded to
		6 of 8 children working	
		1 of 8 in bathroom	
		1 of 8 walking around	
			Teacher checks work of those working

ADAPTIVE BEHAVIOR SCALE
(for children 12 years or younger)

ANSWER SHEETS CHILD

Child's Name: ______________________________

Sex: __________

Child's Age ________________ Birth Date: _______________

Date of this Rating: ____________________

Adaptive Behavior Level: ___________________________

Date of A.B. Assessment: ____________________________

Rater's Name: ___________________________ Ward or Class: _________________

Name of Institution, School, etc.: ____

ADAPTIVE BEHAVIOR SCALE

PART I

1. Independent Functioning

A. Eating Skills

(1) USE OF TABLE UTENSILS

Select the one statement that best describes the Child's use of table utensils

6 Uses knife and fork correctly and neatly
5 Uses table knife for cutting or spreading
4 Feeds self with spoon and fork neatly
3 Feeds self with spoon and fork--considerable spilling
2 Feeds self with spoon--neatly
1 Feeds self with spoon--considerable spilling
0 Feeds self with fingers or not at all

(2) OMIT

(3) DRINKING

Select the one statement that best describes the child's ability to drink from a cup or glass

3 Drinks without spilling, holding glass in one hand
2 Drinks from cup or glass unassisted--neatly
1 Drinks from cup or glass unassisted--considerable spilling
0 Does not drink from cup or glass unassisted

(4) Table Manners are Acceptable

Check Yes or No If No select all statements that apply

a. Swallows food without chewing
b. Chews food with open mouth
c. Drops food on table or floor
d. Does not use napkin correctly
e. Talks with mouth full
f. Takes food off other's plate
g. Eats too fast
h. Plays in food with fingers
i. Other:

B. Toilet Use

(5) Toilet Training

Select one statement that best describes the child's level of toilet training

3 Never has toilet accidents during the day
2 Occasionally has toilet accidents during the day
1 Frequently has toilet accidents during the day
0 Is not toilet trained at all

(6) CARES FOR SELF AT TOILET

Check Yes or No If No select all statements that apply.

a. Does not wash hands without help
b. Does not flush toilet after use
c. Does not put on clothes without help
d. Does not use toilet tissue appropriately
e. Does not sit on toilet seat without help
f. Does not lower pants at the toilet without help
g. Other:

C. Cleanliness

(7) Washes Hands and Face in an Acceptable way

Check Yes or No If No select all statements that apply.

a. Does not wash hands with soap
b. Does not wash face with soap
c. Does not wash hands and face with water
d. Does not dry hands and face
e. Other:

(8) Omit

(9) Omit

(10) Teeth Brushing

Select the one statement that best describes the child's ability to brush his teeth.

5 Applies tooth paste and brushes teeth with up and down motion
4 Applies tooth paste and brushes teeth
3 Brushes teeth without help, but cannot apply tooth paste
2 Brushes teeth with supervision
1 Cooperates in having teeth brushed
0 Makes no attempt to brush teeth

D. Appearance

(11) Has good Posture When Walking, Sitting, and Standing.

Check Yes or No If No select all statements that apply.

a. Mouth hangs open
b. Head hands down
c. Stomach sticks out because of posture
d. Shoulders slumped forward and back bent
e. Shuffles, drags, or stamps feet when walking
f. Walks on tiptoes
g. Other:

(12) Omit

(13) Omit

E. Care of Clothing

(14) Take Care of Clothing and Shoes

Check Yes or No If No select all statements that apply.

a. Does not wipe and polish shoes when needed
b. Does not hang up clothes without being reminded
c. Does not hang up clothes even if reminded
d. Other:

F. Dressing and Undressing

(15) Dresses Self without Assistance

Check Yes or No If No select all statements that apply.

a. Does not button or zip coat, dress, skirt, pants or skirt without assistance
b. Does not put on coat or dress without assistance
c. Does not put on socks correctly without assistance
d. Does not cooperate in dressing by extending arms or legs
e. Other:

(16) Omit

(17) Putson and Removes Shoes without Assistance

Check Yes or No If No select all statements that apply.

a. Does not put on shoes correctly without assistance
b. Does not tie shoe laces without assistance
c. Does not untie shoe laces without assistance
d. Does not remove shoes without assistance
e. Other:

(18) Omit

(19) Omit

(20) Omit

H. General Independent Functioning

(21) Miscellaneous Independent Functioning

Select all statements that apply.

a. Has ordinary control of appetite, eats moderately
b. Knows postage rates, can buy stamps from Post Office
c. Looks after personal health, e.g., changes wet clothing
d. Knows how to deal with simple injuries, e.g., cuts, burns

II. Physical Development (Supplementary Information)

A. Sensory Development

(22) Omit

(23) Omit

B. Motor Development

(24) Body Balance

Select the one statement that best describes the child's ability to maintain his balance.

6 Able to balance on "tiptoe" while bending forward
5 Is able to stand on "tiptoe" for ten seconds
4 Can stand on one foot for two seconds if asked
3 Stands without support for ten or more minutes
2 Stands without support for ten or more minutes
1 Sits unsupported
0 Can do none of the above

(25) Can Walk and Run Without Difficulty

Check Yes or No If No select all statements that apply

a. Cannot walk alone
b. Cannot walk up and down stairs alone
c. Cannot walk down stairs by alternating his feet
d. Cannot run without falling often
e. Is not able to hop and skip
f. Other:

(26) Has good control of hands

Check Yes or No If No select all statements that apply

a. Cannot catch a ball
b. Cannot throw a ball overhand
c. Is not able to lift a cup
d. Cannot grasp with thumb and finger
e. Other:

(27) Spasticity

Select the one statement that best described the child's spasticity.

3 Not spastic
2 Mildly spastic
1 Moderately spastic
0 Severely spastic

III. Economic Activity

A. Money Handling and Budgeting

(28) Money Handling

Select the one statement that best describes the child's ability to handle money.

4 Makes change correctly
3 Adds coins of various denominations, up to one dollar
2 Uses money, but does not make change correctly
1 Realizes money has value, but does not use money
0 Has no idea of the value of money

(29) Omit

B. Shopping Skills

(30) Errands

Select the one statement that best describes the child's ability to run errands.

2 Can be sent on an errand for simple purchasing without a note
1 Can be sent on an errand for simple purchasing with a note
0 Cannot be sent on errands

(31) Omit

IV. Language Development

A. Speaking and Writing

(32) Writing

Select the one statement that best describes the child's ability to write.

5 Writes sensible and understandable letters
4 Writes short notes and memos
3 Writes or prints forty words
2 Writes or prints ten words
1 Writes or prints own name
0 Cannot write or print any words

(33) Is Able to Say at Least a Few Words

Check Yes or No If No select all statements that apply.

a. Nods head or smiles to express happiness
b. Indicates hunger
c. Indicates wants by pointing or vocal noises
d. Chuckles or laughs when happy
e. Expresses pleasure or anger by vocal noises
f. Other:

IF YOU ANSWERED "NO" TO THIS QUESTION, SKIP THE FOLLOWING THREE QUESTIONS: QUESTIONS 34, 35, and 36.

(34) Speech is Generally Clear and Understandable

Check Yes or No If No select all statements that apply.

a. Speech is low, weak, whispered or difficult to hear
b. Speech is slowed, deliberate, or labored
c. Speech is hurried, accelerated, or pushed
d. Speaks with blocking, halting, or other irregular interruptions
e. Other:

(35) Sentences

Select the one statement that best describes the sentences used by the child.

3 Sometimes used complex sentences containing "because," "but," etc.
2 Asks questions using words such as "why" "how," "what," etc.
1 Speaks in simple sentences of three words or more
0 Speaks either in incomplete sentences or not at all

(36) Vocabulary

Select the one statement that best describes the child's vocabulary.

4 Talks about action when describing pictures
3 Names people or objects when describing pictures
2 Uses names of familiar objects
1 Asks for at least ten things by their appropriate names
0 Is nearly non-verbal

B. Comprehension

(37) Reading

Select the one statement that best describes the child's ability to read.

5 Reads books suitable for children nine years or older
4 Reads books suitable for children seven years old
3 Reads simple stories or comics
2 Reads various signs, e.g., "NO PARKING," "ONE WAY," "MEN," "WOMEN," etc.
1 Recognizes ten or more words by sight
0 Recognized fewer than ten words

(38) Understands Complex Instructions

Check Yes or No If No select all statements that apply.

a. Does not understand instructions containing prepositions, e.g., "on" "in," "behind," "under," etc.
b. Does not understand instructions referring to the order in which things must be done, e.g., "first--, then--, then--."
c. Does not understand instructions requiring a decision: "If--, do this, but if not, do--"
d. Other:

C. General Language Development

(39) Is Polite and Sociable

Check Yes or No If No select all statements that apply.

a. Does not use phrases such as "please," and "thank you"
b. Is not sociable or talkative during meals
c. Does not talk to others about sports, family, group activities, etc.
d. Other:

(40) General Language Development

Select all statements that apply.

a. Can talk another child back into good humor
b. Listens and can be reasoned with verbally
c. Seems to enjoy being talked to
d. Can talk sensibly if asked
e. Enjoys books, newspapers, magazines
f. Repeats a story with little or no difficulty

V. Number and Time Concept

(41) Number Concept

Select one statement that best describes the child's ability to use numbers.

5 Counts thirty or more objects
4 Mechanically counts ten objects
3 Handles "number situations" up to four (including "taking away")
2 Can count two objects by saying "one...two"
1 Discriminates between "one" and "many" or "a lot"
0 Has no understanding of numbers

(42) Understands Time, Time Intervals, Time Equivalents, Etc.

Check Yes or No If No select all statements that apply.

a. Cannot tell time by clock or watch correctly to the minute
b. Does not understand time intervals, e.g., between "3:30" and "4:30"
c. Is not capable of stating the correct time one or two hours before and after a given time
d. Does not tell time or understand "time" equivalents, e.g., "9:15" is the same as "quarter past nine"
e. Does not associate time on clock with various actions and events
f. Other:

(43) General Number and Time concept

Select all statements that apply.

a. Names the days of the week, e.g., "Monday," "Tuesday"
b. Understands difference between day-week, minute-hour, month-year, etc.
c. Refers correctly to "morning" and "afternoon"

VI. Occupation Domestic

A. Cleaning

(44) Room Cleaning

Select the one statement that best describes the child's house cleaning ability.

2 Cleans room well, including sweeping, dusting and tidying
1 Cleans rooms but does not sweep under furniture or does not dust thoroughly
0 Does not clean rooms at all

(45) Omit

B. Kitchen Duties

(46) Table Setting

Select the one statement that best describes the child's ability to set the table.

3 Places all eating utensils, as well as napkins, salt, pepper, sugar, etc.
2 Places plates, glasses and utensils in positions he has learned
1 Simply places silver, plates, cups, etc., on the table
0 Does not set table at all

(47) Omit

(48) Table Clearing

Select the one statement that best describes the child's ability to clear the table.

1 Clears table of unbreakable dishes and silverware
0 Does not clear table at all

VII. Occupation General

(50) Work Fitness

Select the one statement that best describes the child's work fitness.

2 Can perform a job requiring use of tools or machinery, e.g., shop work, sewing, etc.
1 Can perform simple work, e.g., simple gardening, mopping floors, emptying trash, etc.
0 Can perform no work at all

(51) Job performance is acceptable

Check Yes or No If No select all statements that apply

a. Endangers self or others because of carelessness
b. Does not take care of tools
c. Is a very slow worker
d. Does "sloppy" inaccurate work
e. Other:

VIII. Self-Direction

A. Sluggishness in Movement

(52) Movement is Slow and Sluggish

Check No or Yes   If Yes select all statements that apply. *

a. Body Movement is slow and deliberate
b. Is slow worker
c. Seems to have no energy
d. Others:

* Answer "No" if the child's physical handicaps make him slow and sluggish.

B. Initiative

(53) Initiative

Select the one statement that best describes the child's initiative.

3 Initiates most of his own activities
2 Asks if there is work for him to do
1 Sits all day if not directed to an activity
0 Will not do any assigned duties

(54) Has Self-Direction

Check Yes or No   If No select all statements that apply.

a. Has to be made to do things
b. Has no ambition
c. Seems to have no interest in things
d. Finishes task last because of wasted time
e. Is unnecessarily dependent on others for help
f. Other:

C. Persistence

(55) Perseverance

Select the one statement that best describes the child's perseverance.

4 Will pay attention to task for more than fifteen minutes, e.g., cleaning up, putting things away
3 Will pay attention to task for at least fifteen minutes
2 Will pay attention to task for at least ten minutes
1 Will pay attention to task for at least five minutes
0 Will not pay attention to task, even it if requires less than 5 minutes

(56) Has Persistence

Check Yes or No   If No   select all statements that apply.

a. Has short attention span
b. Becomes easily discouraged
c. Fails to carry out tasks
d. Jumps from one activity to another and never finishes a task
e. Needs constant encouragement to complete task
f. Other:

(57) Omit

E. Self-Direction (General)

(58) General Self Direction

Select all statements that apply.

a. Concentrates on tasks and carries them through to completion
b. Stays with the task without frequent redirection
c. Occupies self unattended
d. Is willing to do extra chores
e. Systematizes own work
f. Does simple creative work

IX. Responsibilities

(59) Responsibility for Personal Belongings

Select the one statement that best describes the child's highest level of responsibility for personal belongings, e.g., clothing, books, pencils, etc.

3 Very dependable--always takes care of personal belongings
2 Usually dependable--reasonably certain that the child takes care of personal belongings
1 Unreliable--uncertain that the child takes care of personal belongings
0 Not responsible at all--does not take care of personal belongings

(60) Responsibility

Select the one statement that best describes the child's highest level of responsibility.

3 Very conscientious and assumes much responsibility--makes a special effort; the assigned act will always be performed.
2 Usually dependable--makes an effort to carry out responsibility; one can be reasonably certain that the assigned act will be performed.
1 Unreliable--makes little effort to carry out responsibility; one is uncertain that the assigned act will be performed.
0 Not given responsibility; is unable to carry out responsibility at all.

X. Socialization

(61) Is Cooperative

Check No or Yes If Yes select all statements that apply.

a. Is willing to help if asked
b. Offers assistance to others
c. Does helpful things for others
d. Wishes to please others
e. Other:

(62) Is Considerate of Others

Check No or Yes If Yes select all statements that apply.

a. Shows interest in the affirs of others; is not indifferent
b. Takes care of others' belongings
c. Directs or manages the affairs of others when needed
d. Seems considerate of others' feelings
e. Other:

(63) Knowledge about others

Select all statements that apply.

a. Recognized own family
b. Recognized faces of others, e.g., teachers, classmates, etc.
c. Is well informed about others, e.g., classmates, neighbors, etc.
d. Knows the names of many people around him.
e. Knows the names of many professional people, e.g., aides, teachers, etc.

(64) Interaction with others

Select the one statement that best describes the child's highest level of interaction with others.

3 Plays cooperatively or competively with others in group games
2 Plays with others for at least short periods of time, e.g., showing or offering toys, clothing or objects
1 Plays with others imitatively with little interaction
0 Is completely unresponsive to others

(65) Participation in Group Activities

Select the one statement that best describes the child's highest level of participation in group activities.

3 Initiates group activities (Leader and organizer)
2 Participates in group activities spontaneously and eagerly (active participant)
1 Participates in group activities if encouraged to do so (passive participant)
0 Is completely unresponsive to others

(66) Selfishness

Select all statements that apply.

a. Refuses to take turns
b. Does not share with others
c. Gets mad if he does not get his way
d. Expects everyone to give in to his wishes
e. Interrupts aide or teacher who is helping another person
f. Other:

(67) Other Immaturities in Socialization

Select all statements that apply.

a. Is too familiar with strangers
b. Is afraid of strangers
c. Does anything to make friends
d. Is helpless and dependent on others
e. Likes to hold hands with everyone
f. Is at aide's or teacher's elbow constantly
g. Other:

INSTRUCTIONS FOR PART II - PLEASE READ CAREFULLY

The items in the remaining part of this scale ask you how frequently a given behavior occurs for the child.

Look at the following example:

ATTACKS OTHERS PHYSICALLY

Check (✓) No or Yes on the answer sheet. If Yes select all statements that are true of the child.

a. Scratches, pinches or slaps others
b. Bites others
c. Uses objects as weapons against others
d. Chokes others
e. Other:

If you have never seen a child attacking others physically, check (✓) "No" on the answer sheet and move on to the next item. If the child has a tendency to attack others physically, check (✓) "Yes" on the answer sheet and also check (✓) all statements that are true of the child. Notice that there are two columns on the answer sheet for your check marks. They are "occassionally" and "frequently."

In EXAMPLE 3 on your ANSWER SHEET (PAGE 6), the child slaps others frequently, and he bites others occasionally. Therefore, the check marks (✓) are placed in the appropriate columns (Occas. or Freq.) "Occasionally" signifies that the behavior occurs once in a while or now and then, and "Frequently" signifies that the behavior occurs quite often or habitually.

In the example above, the space labeled "Other" is used because the child throws objects at others frequently. The check mark (✓) is also placed in the appropriate column on the answer sheet to indicate the frequency of such "Other" behavior. The behavior listed must be a specific example of the behavior problem stated in the question, but one not covered by the examples given.

Please continue your rating by proceeding on to Part II. Note that the instructions given above are slightly different from those used for Part I.

PLEASE BE SURE THAT EACH PAGE NUMBER OF THIS SCALE IS THE SAME AS THE PAGE NUMBER AT THE TOP OF EACH COLUMN ON YOUR ANSWER SHEET.

PART II

A. VIOLENT AND DESTRUCTIVE BEHAVIOR

(1) Threatens or Does Physical Violence

Check No or Yes If Yes select all statements that are true of the child.

a. Uses threatening gestures
b. Indirectly causes injury to others
c. Spits on others
d. Pushes, scratches, or pinches others
e. Pulls others' hair, ears, etc.
f. Bites others
g. Kicks, strikes or slaps others
h. Throws objects at others
i. Uses objects as weapons against others
j. Chokes others
k. Hurt animals
l. Other:

(2) Damages Personal Property

Check No or Yes If Yes select all statements that are true of the child.

a. Rips, tears or chews own clothing
b. Soils own property
c. Deliberately tears up own magazines, books, or other possessions
d. Other:

(3) Damages Others' Property

Check No or Yes If Yes select all statements that are true of the child.

a. Rips, tears, or chews others' clothing
b. Soils others' property
c. Deliberately tears up others' magazines, books, or personal possessions.
d. Other:

(4) Damages Public Property

Check No or Yes If Yes select all statements that are true of the child.

a. Tears up magazines, books or other public property
b. Is overly rough with furniture (kicks, mutilates, knocks it down)
c. Breaks windows
d. Stuffs toilet with paper, towels or other solid objects that causes an overflow
e. Attempts to set fires
f. Other:

(5) Has Violent Tempter or Temper Tantrums

Check No or Yes If Yes select all statements that are true of the child.

a. Cries and screams
b. Stamps feet, banging objects or slamming doors, etc.
c. Stamps feet, screaming and yelling
d. Throws self on floor, screaming and yelling
e. Other:

B. ANTI-SOCIAL BEHAVIOR

(6) Teases or Gossips About Others

Check No or Yes If Yes select all statements that are true of the child.

a. Gossips about others
b. Tells untrue or exaggerated stories about others
c. Teases others
d. Picks on others
e. Makes fun of others
f. Other:

(7) Bosses and Manipulates Others

Check No or Yes If Yes select all statements that are true of the child.

a. Tries to tell others what to do
b. Demands services from others
c. Pushes others around
d. Causes fights among other people
e. Manipulates others to get them in trouble
f. Other:

(8) Disrupts Others' Activities

Check No or Yes If Yes select all statements that are true of the child.

a. Is always in the way
b. Interferes with others' activities, e.g., blocking passage, upsetting wheelchairs, etc.
c. Upsets others' work
d. Knocks around articles that others are working with, e.g., puzzles card games, etc.
e. Snatches things out of other people's hands
f. Other:

(9) Is Inconsiderate of Others

Check No or Yes If Yes select all statements that are true of the child.

a. Keeps temperature in public areas uncomfortable for others, e.g., opens or closes window, changes thermostat
b. Turns TV, radio or phonograph on too loudly
c. Makes loud noises while others are reading
d. Talks too loudly
e. Sprawls over furniture or space needed by others
f. Other:

(10) Shows Disrespect for Others' Property

Check No or Yes If Yes select all statements that are true of the child.

a. Does not return things that were borrowed
b. Uses others' property without permission
c. Loses other people's belongings
d. Damages others' property
e. Does not recognize the difference between his own and others' property
f. Other:

(11) Uses Profane or Hostile Language

Check No or Yes If Yes select all statements that are true of the child.

a. Uses hostile language, e.g., "stupid jerk," "dirty pig,", etc.
b. Swears, curses, or uses obscene language
c. Yells or screams threats of violence
d. Verbally threatens others, suggesting physical violence
e. Other:

C. REBELLIOUS BEHAVIOR

(12) Ignores Regulations or Regular Routines

Check No or Yes If Yes select all statements that are true of the child.

a. Has negative attitude toward rules but usually conforms
b. Has to be forced to go through waiting lines, e.g., lunch lines, ticket lines, etc.
c. Violates rules or regulations, e.g., eats in restricted areas, disobeys traffic signals, etc.
d. Refuses to participate in required activities, e.g., work, school, etc.
e. Other:

(13) Resists Following Instructions, Requests or Orders

Check No or Yes If Yes select all statements that are true of the child.

a. Gets upset if given a direct order
b. Plays deaf and does not follow instructions
c. Does not pay attention to instructions
d. Refuses to work on assigned subject
e. Hesitates for long periods before doing assigned tasks
f. Does the opposite of what was requested
g. Other:

(14) Has impudent or rebellious attitude toward authority

Check No or Yes If Yes select all statements that are true of the child.

a. Resents persons in authority, e.g., teachers, group leaders, ward personnel, etc.
b. Is hostile toward people in authority
c. Mocks people in authority
d. Says that he can fire people in authority
e. Says relative will come to kill or harm persons in authority
f. Other:

(15) Is Absent From, Or Late For the Proper Assignment or Places

Check No or Yes If Yes select all statements that are true of the child.

a. Is late to required places or activities
b. Fails to return to places where he is supposed to be after leaving, e.g., going to toilet, running an errand, etc.
c. Leaving place of required activity without permission, e.g., work, class, etc.
d. Is absent from routine activities, e.g., work, class, etc.
e. Other:

(16) Runs away or attempts to run away

Check No or Yes If Yes select all statements that are true of the child.

a. Attempts to run away from home, or school ground.
b. Runs away from group activities, e.g., picnics, school buses, etc.
c. Runs away from home or school ground
d. Other:

(17) Misbehaves In Group Settings

Check No or Yes If Yes select all statements that are true of the child.

a. Interrupts group discussion by talking about unrelated topics
b. Disrupts games by refusing to follow rules
c. Disrupts group activities by making loud noises or by acting up
d. Does not stay in seat during lesson period, lunch period, or other group sessions
e. Other:

D. UNTRUSTWORTHY BEHAVIOR

(18) Takes Others' Property Without Permission

Check No or Yes If Yes select all statements that are true of the child.

a. Has been suspected of stealing
b. Takes others' belongings if not kept in place or locked
c. Takes others' belongings from pockets, purses, drawers, etc.
d. Takes others' belongings by opening or breaking locks
e. Other:

(19) Lies or Cheats

Check No or Yes If Yes select all statements that are true of the child.

a. Twists the truth to own advantage
b. Cheats in games, tests, assignments, etc.
c. Lies about situations
d. Lies about self
e. Lies about others
f. Other:

E. WITHDRAWAL

(20) Is Profoundly Withdrawn and Inactive

Having a low level of physical activity. Check No or Yes If Yes select all statements that are true of the child.

a. Sits or stands in one position for a long period of time
b. Does nothing but sit and watch others
c. Falls asleep in a chair
d. Lies on the floor all day
e. Does not seem to react to anything
f. Other:

(21) Is Withdrawn but Active

Check No or Yes If Yes select all statements that are true of the child.

a. Seems unaware of surroundings
b. Is difficult to reach or contact
c. Is apathetic and unresponsive in feeling
d. Has a blank stare
e. Has a fixed expression
f. Other:

(22) Is Withdrawn or Shy

Check No or Yes If Yes select all statements that are true of the child.

a. Is timid and shy in social situations
b. Hides face in group situations, e.g., parties, informal gatherings, etc.
c. Does not mix well with others
d. Always prefers to be alone
e. Other:

F. STEREOTYPED BEHAVIOR AND ODD MANNERISMS

(23) Has Stereotyped Behaviors

Check No or Yes If Yes select all statements that are true of the child.

a. Drums fingers
b. Taps feet continually
c. Has hands constantly in motion
d. Slaps, scratches, or rubs self continually
e. Waves or shakes part of the body repeatedly
f. Moves or rolls head back and forth
g. Rocks body back and forth
h. Paces the floor
i. Other:

(24) Has Peculiar Posture or Odd Mannerisms

Check No or Yes If Yes select all statements that are true of the child.

a. Holds head tilted
b. Sits with knees under chin
c. Walks on tiptoes
d. Lies on floor with feet up in the air
e. Walks with fingers in ears or with hands on head
f. Other:

G. INAPPROPRIATE INTERPERSONAL MANNERS

(25) Has Inappropriate Interpersonal Manners

Check No or Yes If Yes select all statements that are true of the child.

a. Talks too close to people's faces
b. Blows on people's faces
c. Burps at others
d. Kisses or licks others
e. Hugs or squeezed others
f. Touches people inappropriately
g. Hangs on to others and does not let go
h. Other:

H. UNACCEPTABLE VOCAL HABITS

(26) Has disturbing vocal or speech habits

Check No or Yes If Yes select all statements that are true of the child.

a. Giggles hysterically
b. Talks loudly or yells at others
c. Talks to self loudly

d. Laughs inappropriately
e. Makes growling, humming, or other unpleasant noises
f. Repeats a word or phrase over and over
g. Mimics others' speech
h. Other:

I. UNACCEPTABLE OR ECCENTRIC HABITS

(27) Has Strange and Unacceptable Habits

Check No or Yes If Yes select all statements that are true of the child.

a. Smells everything
b. Inappropriately stuffs things in pockets, shirts, dresses or shoes
c. Pulls threads out of own clothing
d. Constantly plays with things he is wearing, e.g., shoe strings, buttons, etc.
e. Saves and wears unusual articles, e.g., safety pins, bottle caps, etc.
f. Hoards things, including foods
g. Plays with spit
h. Plays with feces or urine
i. Other:

(28) Has Unacceptable Oral Habits

Check No or Yes If Yes select all statements that are true of the child.

a. Drools constantly
b. Grinds teeth audibly
c. Spits on the floor
d. Bites fingernails constantly
e. Chews or sucks fingers or other parts of the body
f. Chews or sucks clothing or other inedibles
g. Eats inedibles
h. Drinks from toilet stool
i. Puts everything in mouth
j. Other:

(29) Removes or Tears Off Own Clothing

Check No or Yes If Yes select all statements that are true of the child.

a. Tears off buttons or zippers
b. Inappropriately removes shoes or socks
c. Undresses at the wrong times

d. Takes off all clothing while on the toilet
e. Tears off own clothing
f. Refuses to wear clothing
g. Other:

(30) Has Other Eccentric Habits and Tendencies

Check No or Yes If Yes select all statements that are true of the child.

a. Is overly particular about places to sit or sleep
b. Constantly stands in a favorite spot, e.g., by window, by door, etc.
c. Sits by anything that vibrates
d. Is afraid to climb stairs or to go down stairs
e. Does not want to be touched
f. Screams if touched
g. Other:

J. SELF-ABUSIVE BEHAVIOR

(31) Does Physical Violence to Self

Check No or Yes If Yes select all statements that are true of the child.

a. Bites or cuts self
b. Slaps or strikes self
c. Bangs head or other parts of the body against objects
d. Pulls own hair, ears, etc.
e. Scratches or picks self causing injury
f. Soils and smears self
g. Purposely provokes abuse from others
h. Picks at any sores he might have
i. Pokes objects in own ears, eyes, nose or mouth
j. Other:

K. HYPERACTIVE TENDENCIES

(32) Has Hyperactive Tendencies

Check No or Yes If Yes select all statements that are true of the child.

a. Is constantly talking
b. Will not sit still for any length of time
c. Frequently runs or jumps around the room or hall
d. Is constantly moving
e. Other:

L. SEXUALLY ABERRANT BEHAVIOR

(33) Engages in inappropriate masturbation

Check No or Yes If Yes select all statements that are true of the child.

a. Has attempted to masturbate openly
b. Masturbates in front of others
c. Masturbates in group
d. Other:

(34) Exposes the Body Improperly

Check No or Yes If Yes select all statements that are true of the child.

a. Returns from toilet undressed
b. Stands in public places with pants down
c. Exposes body excessively during activities, e.g., playing, dancing, sitting, etc.
d. Undresses in public places, or in front of lighted windows.
e. Other:

(35) Omit

(36) Has Heterosexual Behavior that is Socially Unacceptable

Check No or Yes If Yes select all statements that are true of the child.

a. Is overly seductive in appearance or actions
b. Hugs or caresses too intensely in public
c. Needs constant watching when around opposite sex
d. Lifts or unbuttons others' clothing to touch intimately
e. Has sexual relations in public places
f. Is promiscuous
g. Has attempted rape
h. Has raped others
i. Other:

M. PSYCHOLOGICAL DISTURBANCES

(37) Tends to Over-Estimate own Abilities

Check No or Yes If Yes select all statements that are true of the child.

a. Does not recognize his own limitations
b. Has too high an opinion of self
c. Talks about future plans that are unrealistic
d. Other:

(38) Reacts Poorly to Criticism

Check No or Yes If Yes select all statements that are true of the child.

a. Does not talk when corrected
b. Withdraws or pouts when criticized
c. Becomes upset when criticized
d. Screams and cries when corrected
e. Other:

(39) Reacts Poorly to Frustration

Check No or Yes If Yes select all statements that are true of the child.

a. Blames own mistakes on others
b. Withdraws or pouts when thwarted
c. Becomes upset when thwarted
d. Throws temper tantrums when he does not get his own way
e. Other:

(40) Demands Excessive Attention or Praise

Check No or Yes If Yes select all statements that are true of the child.

a. Wants constant praise
b. Is jealous of attention given to others
c. Demands constant reassurance
d. Acts silly to gain attention
e. Other:

(41) Seems to Feel Persecuted

Check No or Yes If Yes select all statements that are true of the child.

a. Complains of unfairness, even when equal shares or privileges have been given
b. Complains "Nobody loves me"
c. Says, "Everybody picks on me"
d. Says, "People talk about me"
e. Says, "People are against me"
f. Acts suspicious of people
g. Other:

(42) Has Hypochondriacal Tendencies

Check No or Yes If Yes select all statements that are true of the child.

a. Complains about imaginary physical ailments
b. Pretends to be ill
c. Acts sick after illness is over
d. Other:

(43) Has Other Signs of Emotional Instabilities

Check No or Yes If Yes select all statements that are true of the child.

a. Changes mood without apparent reasons
b. Complains of bad dreams
c. Cries out while asleep
d. Cries for no apparent reason
e. Seems to have no emotional control
f. Vomits when upset
g. Appears insecure or frightened in daily activities
h. Talks about people or things that cause unrealistic fears
i. Talks about suicide
j. Has made an attempt at suicide
k. Other:

N. SUPPLEMENTARY INFORMATION

(44) Use of Medication

Check No or Yes If Yes select all statements that are true of the child.

a. Uses tranquilizers
b. Uses sedatives
c. Uses anticonvulsant drugs
d. Uses stimulants
e. Other:

CONCLUSION

Conclusion

Proceeding reports show that the general enthusiasm of teachers and administrators of the programs indicates positive attitudes towards the program and students' achievements in reading, math and social skills. Despite the minimal and/or slow gains of the students on a group basis in some classes, individual gains for some students were very significant. One should bear in mind, however, that minimal and/or slow progress for SMR children is significant when one understands the problems these children must overcome.

Evaluations

Evaluations were essentially in three parts: Objective and subjective data - tests and opinions, reports and records by teachers of the projects; and information submitted by supportive programs and services.

Third party evaluations were conducted by consultants contracted for each project by the Division of Research, Planning and Evaluation, Department of Research and Evaluation. A staff member of the Division assisted in the general evaluation designs and the evaluations of the programs.

Teacher Training

In-service teacher training programs were written into several of the project proposals. The training was to include the project teachers and aides as well as others interested in or involved with the training of the handicapped child. For a variety of reasons training programs involving persons outside the projects were not conducted. However, project teachers and aides did participate in training workshops and conferences prior to the beginning of the programs, and during the implementation of the program. Some college seniors and graduate students received training by actually working with the students in several of the programs. A graduate student from California, learning about one of the programs, spent part of his vacation time in voluntary services with the program.

Parent Involvement

Overall participation of parents in the projects was not very successful. However, all of the projects did involve some or all of the parents to some extent: through on-going written reports, through discussions with the teachers, through visitations of the parents to the projects to either observe or participate in some way in the projects. In one project a parent group was organized. In another, a parent from the community, whom most of the students in the class knew, served as an aide.

It seems reasonable to say that although involvement of parents was on the whole, minimal, the project staff members and directors did make some efforts to include them in some way in the implementation of the programs.

Dissemination

To create an awareness of need and to share educational information the directors and staff of the program disseminated information during the fiscal year 1970-1971 in much of the same way as in the fiscal year 1969-1970. Newsletters, reports, television, a photographer who filmed classes for documentary purposes, invitations to visit the projects, telephone responses, and written communications continued to be used as dissemination channels. Reports in special education bulletins were distributed through the Public Schools of the District of Columbia as were papers presented to professional groups and interested community agencies and organizations. Project LIFE news included information about the program; video tapes were made by project staff and were made available to the public. One of the projects received the Innovative Project Award from the President of the National Advisory Council on Supplementary Centers and Services, and this information was distributed nationally. A tape is on record about all of the projects in the Department of Federal Programs of the D. C. Public Schools. This tape is also available to persons or agencies interested in the projects.

In addition, Final Reports are available by writing to the Division of Planning, Research and Evaluation.

Summary

The general impression of the consultants' evaluation of these ESEA Title III Special Education Projects is that several facets are significant: creative solutions to problems of the handicapped child have been developed; the programs are exemplary and have educational significance; it is reasonable to believe that incorporation of the techniques into public educational programs is possible.